The information in this booklet must not be given to the public

British Rail | Train Crew Manual

Class 370 Trains (APT–P)

Drivers Static Duties

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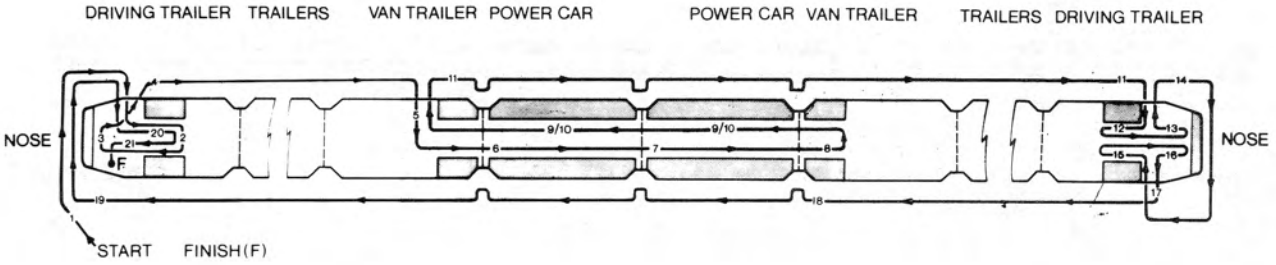
CLASS 370

DRIVING TRAILER VAN TRAILER POWER CAR POWER CAR VAN TRAILER DRIVING TRAILER

AUX. DIESEL TRAILER CARS TRAILER CARS AUX. DIESEL

NOTE TRACTION EQUIPMENT SPACE SHADED

ONE DRIVER


DRIVING TRAILER
TRAILERS
VAN TRAILER
POWER CAR
POWER CAR
VAN TRAILER
TRAILERS
DRIVING TRAILER
NOSE
NOSE
F
9/10
9/10
6
7
8
START
FINISH(F)

FULL PREPARATION DUTIES FOR CLASS 370 TRAINS – TO BE CARRIED OUT BY ONE DRIVER

1. Approach the train at the driving end and check from the front that no "not to be moved" targets or red flags are displayed or that any tilt chocks are visible on either side.

2. Enter the diesel engine bay, via leading driving compartment.

   2.1 Move the battery isolating switch (B.I.S.) to the ON position.

3. Re-enter the leading driving compartment.

   3.1 Check that the brake emergency plunger is in the fully raised position.

   3.2 Check that the brake control handle is at RUNNING.

   3.3 Insert the master key and move the master switch to AUXILIARIES.

   3.4 Check that the parking brake is applied.

   3.5 Move the master switch to OFF and remove the master key.

   3.6 Switch on the marker lights, tail lights and headlights.

   3.7 Check that the repair book contains no serious defects that have not been signed off.

4. Leave the driving compartment by the assistant driver's side door and proceed towards the power car(s).

   4.1 Check that no pipes or cables are attached.

   4.2 Check that no brakes are isolated.

   4.3 Check that no scotches are in position.

   4.4 Check that no tilt chocks are in position.

   4.5 Check for obvious defects and damage.

   4.6 Check that air pipe cocks are open.

5. Enter the leading van trailer and switch on the corridor lights.

   5.1 Check that the brake isolating cock is correctly set i.e. open.

6. Pass through to the leading power car, and switch on corridor lights.

6.1 Check that all four brake isolating cocks are correctly set, i.e. open.

6.2 Note the position of pantograph isolating switch.

6.3 Move the B.I.S. to the ON position.

6.4 Check that the traction control isolator is in the 'ON' position, that all MCB's are set, test fuses 1-11 with test switch and lamp and that no faults are indicated.

6.5 On the fixed fire extinguisher, check that the electrical connection is made to the firing head, and that the discharge indicator has not operated.

7. Pass through to the trailing power car, and switch on corridor lights.

7.1 On the fixed fire extinguisher, check that the electrical connection is made to the firing head, and that the discharge indicator has not operated.

7.2 Check that all four brake isolating cocks are correctly set, i.e. open.

7.3 Note the position of pantograph isolating switch.

7.4 Move the B.I.S. to the ON position.

7.5 Check that the traction control isolator is in the 'ON' position, that all MCB's are set, test fuses 1-11 with test switch and lamp, and that no faults are indicated.

8. Proceed to the rear van trailer, and switch on corridor lights.

8.1 Check that the brake isolating cock is correctly set i.e. open.

9. Proceed to the power car where the Pantograph Isolating Switch is in the 'LIVE' position.

9.1 When the auxiliary compressor has stopped, press the 'Pan UP' button, and when the pan touches the overhead wire, release the button.

9.2 Check that the battery charger is working correctly.

10. Proceed to the other power car.

10.1 Check that the battery charger is working correctly.

11. Proceed internally to leading van trailer, leaving all doors closed and alight by the door used for entry.

11.1 Between the trailer rake and the leading power car, check that the drawgear, main reservoir pipe, 3 control cables and two Motor Alternator (M.A.) supply jumpers are correctly connected. Check also that air pipe cocks are open.

11.2 On the sides of both power cars.

11.2.1 Check that no pipes or cables are attached.

11.2.2 Check that no scotches are in position.

11.2.3 Check that no tilt chocks are in position.

11.2.4 Check for obvious defects and damage.

11.3 Between the two power cars, check that the drawgear, main reservoir pipe and three control cables are connected correctly. Check also that the air pipe cocks are open.

11.4 Between the van trailer and power car, check that the 3-phase supply jumper and two M.A. supply jumpers are correctly connected.

11.5 Proceed towards the rear of the train and check the trailer vehicles as per Section 4.

12. Enter the driving compartment of the rear driving trailer by the driver's side door, and pass through to the diesel engine bay.

12.1 Move the B.I.S. to the ON position.

13. Re-enter the driving compartment.

13.1 Move the brake controller handle to EMERGENCY.

13.2 Insert the master key and move the master switch to AUXILIARIES.

13.3 Immediately press and release the AWS reset button.

13.4 When the line indicator has illuminated, press and release both M.A. Set Start buttons, and check that the auxiliaries indicator on the desk goes out.

13.5 Press the indicator light test button and check that all other indicator lights illuminate.

13.6 Switch on the marker lights, headlights and tail lights.

13.7 When the C-APT warning sounds continuously (normally the second warning), press and release the C-APT reset button. Check that the speed restriction light illuminates for a few seconds and that both C-APT AVAILABLE lights remain illuminated.

13.8 Check that the repair book contains no serious defects that have not been signed off.

14. Leave the compartment by the driver's side door.

14.1 Check that the marker lights, headlights and tail lights are illuminated.

14.2 Check that the nose end is lowered and SECURE.

15. Re-enter the driving compartment by the assistant drivers side door and proceed into the diesel bay.

15.1 Check that the diesel auxiliary set test switch is at NORMAL.

15.2 Check for obvious defects, particularly that the battery charger is working correctly, and that no MCB's are tripped.

15.3 Check that the No.1 axle brake isolating cock is correctly set i.e. open.

16. Re-enter the rear driving compartment.

16.1 Check that the AWS, C-APT, DSD and MRLP isolating switches are sealed in their operating positions.

16.2 Check that the 'Tow Enable' switch is in its NORMAL position.

16.3 On the fixed fire extinguisher, check that the electrical connection is made to the firing head, and that the discharge indicator has not operated.

16.4 Test Fire Alarm Bell by pressing button.

16.5 Check that two 5.4 kg fire extinguishers are available and sealed.

16.6 Check the emergency equipment in accordance with the Rule Book, Section H 3.2.

16.7 Switch the marker lights, headlights, and one tail lamp off.

16.8 Check that the brake emergency plunger is in the fully raised position.

16.9 When the main reservoir pressure has reached 8.0 bar, move the brake controller handle to RUNNING.

16.10 Move the brake controller handle to each step and check that the brake pressure rises with each step in accordance with the following table:

Brake Controller Handle position	**Brake Pressure BAR**
RUNNING	0
INITIAL	0.1 – 0.3
2	0.6 – 0.8
3	0.8 – 0.9
4	0.9 – 1.1
5	1.1 – 1.3
6	1.4 – 1.6
FULL SERVICE EMERGENCY	1.9 – 2.2

16.11 Move the brake controller handle to RUNNING and fully release the brake.

16.12 Fully depress the brake emergency plunger. Check that the brake pressure rises to its maximum.

16.13 Lift the brake emergency plunger and check that the duplex pressure gauge reads zero.

16.14 Depress the DSD pedal, then move the master switch to FORWARD. Release the DSD pedal and check that the brake pressure rises within a short period.

16.15 Move the master switch to OFF and remove the master key.

17. Leave the rear driving compartment by the assistant driver's side door and ensure that all lights and 'Boost' heat are switched off and all doors and windows are closed. Proceed towards the front of the train on the left hand side.

17.1 Check that no pipes or cables are attached.

17.2 Check that no brakes are isolated.

17.3 Check that no scotches are in position.

17.4 Check that no tilt chocks are in position.

17.5 Check for obvious defects and damage.

17.6 Check that all air pipe cocks are open.

18. Between the van trailer and trailing power car, check that the drawgear, main reservoir pipe, three control jumpers and two M.A. supply jumpers are correctly connected. Check also that air pipe cocks are open.

18.1 On the sides of both power cars.

18.1.1 Check that no pipes or cables are attached.

18.1.2 Check that no scotches are in position.

18.1.3 Check that no tilt chocks are in position.

18.1.4 Check for obvious defects and damage.

18.2 Between the two power cars complete any checks in accordance with clause 11.3.

18.3 Between the leading van trailer and power car check that the 3 phase supply jumper and two M.A. supply jumpers are correctly connected.

19. Proceed towards the front of the train and check trailer vehicles as per Section 4.

    19.1 Check that the marker lights, tail lights, and headlights are illuminated.

    19.2 Check that the nose end is lowered and SECURE.

20. Enter the leading driving compartment by the assistant driver's side door and pass through to the diesel engine bay.

    20.1 Check that the diesel alternator (DA) set test switch is at NORMAL.

    20.2 Check for obvious defects in the diesel engine compartment, particularly that the battery charger is working correctly, and that no MCB's are tripped.

    20.3 Check that the No.1 axle brake isolating cock is correctly set, i.e. open.

21. Re-enter the leading driving compartment.

    21.1 Repeat clauses 16.1 – 16.6 and 16.8

    21.2 Repeat clauses 13.1 to 13.3 and 13.5 to 13.7

    21.3 Repeat clauses 16.10 to 16.14

    21.4 Switch one headlight and both tail lights off.

    21.5 Arrange with the Guard to carry out the brake continuity test.

    21.6 Move the brake controller handle to FULL SERVICE and release the parking brake.

FULL DISPOSAL DUTIES FOR CLASS 370 TRAINS – TO BE CARRIED OUT BY ONE DRIVER.

1. With the train stationary, move the brake controller to EMERGENCY.

2. Apply the parking brake.

3. Move the master switch to OFF and remove the key.

4. Return the brake controller handle to RUNNING and, using the Duplex gauge, check that the brakes remain applied.

5. Switch a tail light on when necessary, and switch the marker lights, head-lights and cab heating off.

6. Lower the pantograph by pressing 'Pan Down' button and check that the line light is extinguished.

7. Enter the diesel engine bay, check for obvious defects and move the B.I.S. to the OFF position.

8. Return to the driving compartment, enter all known defects in repair book and switch off all interior lights.

   WITH THE EXCEPTION OF A TAIL LIGHT, WHERE LOCAL CONDITIONS REQUIRE, IT IS MOST IMPORTANT TO ENSURE THAT NO LIGHTS ARE LEFT SWITCHED ON WHEN THE TRAIN IS UNMANNED.

   CLOSE ALL DOORS AND WINDOWS BEFORE LEAVING.

9. Leave the driving compartment by the left hand side door, pass round the end of the car, checking for obvious defects.

10. Walk to the leading van trailer, checking for obvious defects.

11. Enter the leading van trailer and switch off the corridor lights.

12. Pass through to the leading power car, note if any faults are indicated and move the B.I.S. to the OFF position.

13. Switch off the corridor lights and pass through to the trailing power car.

14. Note if any faults are indicated and move the B.I.S. to the OFF position.

15. Switch off the corridor lights and pass through to the trailing van trailer.

16. Note if any faults are displayed on M.A. set panel and switch off the corridor lights.

17. Alight on the right hand side and proceed towards rear of the train, checking for obvious defects.

18. Enter the rear driving compartment on the same side and proceed into the diesel engine bay.

19. Check for obvious defects and move the B.I.S. to the OFF position.

20. Return to the driving compartment, enter all known defects in repair book. Switch a tail light on when necessary.

    WITH THE EXCEPTION OF A TAIL LIGHT, WHERE LOCAL CONDITIONS REQUIRE, IT IS MOST IMPORTANT TO ENSURE THAT NO LIGHTS ARE LEFT SWITCHED ON WHEN THE TRAIN IS UNMANNED.

    CLOSE ALL DOORS AND WINDOWS BEFORE LEAVING.

21. Leave the rear driving compartment by the door used for entry, pass round the end of the car and check for obvious defects.

22. Walk to the front of the train, checking for obvious defects, and enter all remaining defects in Repair Book in leading driving compartment.

    CLOSE ALL DOORS AND WINDOWS BEFORE LEAVING.

    REPORT ALL KNOWN DEFECTS BY TELEPHONE, IF THE TRAIN IS STABLED AWAY FROM A MAINTENANCE DEPOT.

TAKING OVER A CLASS 370 TRAIN IN SERVICE

1. At the same end as the previous driver.

    1.1 Check that the marker lights and headlight are correctly illuminated.

    1.2 Move the brake controller handle to EMERGENCY.

    1.3 Insert the master key, move the master switch to AUXILIARIES, and press and release the AWS reset button.

    1.4 When the C-APT warning sounds continuously (normally the second warning), press and release the C-APT reset button. Check that the speed restriction light illuminates for a few seconds and that both C-APT AVAILABLE lights remain illuminated.

    1.5 Make a holding brake application until ready to move.

2. At the opposite end as the previous driver.

    2.1 Switch the marker lights and one headlight on and the tail light off.

    2.2 Check that the previous driver has removed his master key.

2.3 Move the brake controller handle to EMERGENCY.

2.4 Insert the master key, move the master switch to AUXILIARIES and press and release the AWS reset button.

2.5 When the C-APT warning sounds continuously (normally the second warning), press and release the C-APT reset button. Check that the speed restriction light illuminates for a few seconds and that both C-APT AVAILABLE lights remain illuminated.

2.6 Make a holding brake application until ready to move.

HANDING OVER A CLASS 370 TRAIN IN SERVICE

1. When the next driver takes over at the same end.

1.1 When the train is stationary, move the brake controller handle to EMERGENCY.

1.2 Move the master switch to OFF and remove the master key.

1.3 Return the brake controller handle to RUNNING, and using the Duplex gauge, check that the brakes remain applied.

1.4 Enter all known defects in the Repair Book and advise the relieving driver.

2. When the next driver takes over at the opposite end.

2.1 When the train is stationary, move the brake controller handle to EMERGENCY.

2.2 Move the master switch to OFF, remove the master key and authorise relieving driver to insert his key, and move his master switch.

2.3 Return the brake controller handle to RUNNING, and using the Duplex gauge, check that the brakes remain applied.

2.4 Switch the marker lights and headlight OFF and switch the tail light on.

2.5 Enter all known defects in the Repair Book and advise the relieving driver.

2.6 Switch all interior lights and cab heating off and leave the cab with the doors and windows closed.

PROCEDURE FOR CHANGING ENDS ON A CLASS 370 TRAIN

1. When the train is stationary, move the brake controller handle to EMERGENCY.

2. Move the master switch to OFF and remove the master key.

3. Return the brake controller handle to RUNNING and, using the Duplex gauge, check that the brakes remain applied.

4. Switch the marker lights and headlight OFF and switch a tail light on.

5. Switch all interior lights and cab heating off and leave the cab with doors and windows closed. Proceed IMMEDIATELY to the opposite end of the train and enter the driving compartment.

6. Move the brake controller handle to EMERGENCY.

7. Insert the master key, move the master switch to AUXILIARIES, and press and release the AWS reset button.

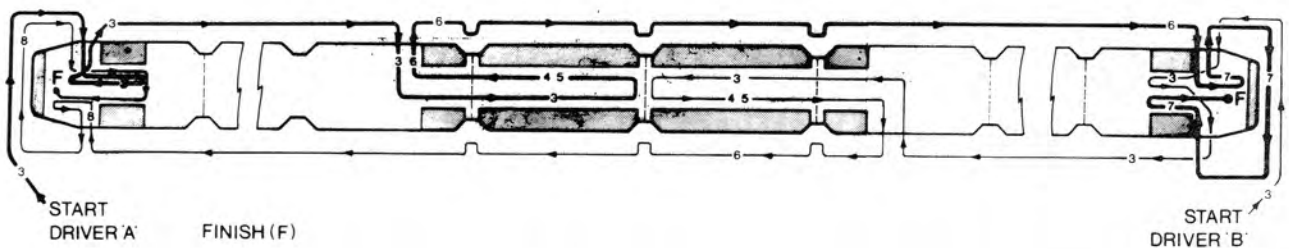
8. When the C-APT warning sounds continuously (normally the second warning), press and release the C-APT reset button. Check that the speed restriction light illuminates for a few seconds and that both C-APT AVAILABLE lights remain illuminated.

9. Make a holding brake application until ready to move.

10. Switch the tail light off, and the marker lights and a headlight on and check that they illuminate.

TWO DRIVERS

DRIVING TRAILER TRAILER VAN TRAILER POWER CAR POWER CAR VAN TRAILER TRAILER DRIVING TRAILER



FULL PREPARATION DUTIES FOR CLASS 370 TRAINS TO BE CARRIED OUT BY TWO DRIVERS SIMULTANEOUSLY.

Class 370 trains can be prepared by two drivers simultaneously.

The two drivers are referred to in the following instructions as 'Driver A' and 'Driver B'. For the purposes of these instructions Driver A will be the first man to move the train in service, although both Drivers may perform the preliminary empty movements by driving from the opposite ends.

The telephone in each cab must be used to enable one Driver to authorise the other that he may insert his master key and then operate his controls as necessary.

WHEN THE TWO DRIVERS ARE AT THE OPPOSITE ENDS OF THE TRAIN, EACH MOVEMENT MUST BE PRECEDED BY A CLEAR UNDERSTANDING ON THE TELEPHONE, REGARDING THE DISTANCE ETC., AND POINT WHERE THE NEXT CHANGE OF DIRECTION WILL TAKE PLACE. THE GUARD MUST BE INFORMED WHEN DRIVING IS TAKING PLACE FROM BOTH DRIVING COMPARTMENTS AND MUST ALSO BE INFORMED WHEN DRIVING IS RESUMED FROM ONE END ONLY.

1. **DRIVER A**

   Driver A must commence his part of the preparation in the OPPOSITE end driving compartment from which he will operate the train in service.

2. **DRIVER B**

   Driver B must commence his part of the preparation in the driving compartment at the opposite end to Driver A.

3. **DRIVER A AND DRIVER B SIMULTANEOUSLY**

   3.1 Approach the train at the end opposite to that which preparation will be completed. Check that no "not to be moved" targets or red flags are displayed or that any tilt chocks are visible on either side.

   3.2 Enter the diesel engine bay, via the driving compartment.

   3.2.1 Move the B.I.S. to the ON position.

   3.3 Re-enter the driving compartment.

3.3.1 Check that the brake emergency plunger is in the fully raised position.

3.3.2 Check that the brake control handle is at RUNNING.

3.3.3 Driver A only:

(a) Insert the master key and move the master switch to AUXILIARIES.

(b) Check that the parking brake is applied.

(c) Move the master switch to OFF and remove the key.

3.3.4 Switch on the marker lights, tail lights and headlights.

3.3.5 Check that the repair book contains no serious defects that have not been signed off.

3.4 Leave the driving compartment by the assistant driver's side door and proceed towards the power car (s).

3.4.1 Check that no pipes or cables are attached.

3.4.2 Check that no brakes are isolated.

3.4.3 Check that no scotches are in position.

3.4.4 Check that no tilt chocks are in position.

3.4.5 Check for obvious defects and damage.

3.4.6 Check that air pipe cocks are open.

3.5 Enter the nearest van trailer and switch on the corridor lights.

3.5.1 Check that the brake isolating cock is correctly set i.e. open.

3.6 Pass through to the power car, and switch on the corridor lights.

3.6.1 Check that all four brake isolating cocks are correctly set i.e. open.

3.6.2 Note the position of the pantograph isolating switch.

3.6.3 Move the B.I.S. to the ON position.

3.6.4 Check that the traction control isolator is in the 'ON' position, that all MCB's are set, test fuses 1-11 with test switch and lamp, and that no faults are indicated.

3.6.5 On the fixed fire extinguisher, check that the electrical connection is made to the firing head, and that the discharge indicator has not operated.

3.7 At the No.2 end of the power car meet the other driver.

NOTE: IF ONLY ONE POWER CAR IS IN THE TRAIN, BOTH DRIVERS TOGETHER TO CARRY OUT SECTIONS 3.6 AND 4, AND DELETE SECTION 5.

4. The driver in the power car with Pantograph Isolating Switch in the 'LIVE' position.

4.1 When the auxiliary compressor has stopped press the 'Pan Up' button, and when the pan touches the overhead wire, release the button.

4.2 Check that the battery charger is working correctly.

5. The driver in the power car with Pantograph Isolating switch in the EARTHED position.

5.1 When the other driver has closed the main circuit breaker, check that the battery charger is working correctly.

6. **DRIVER A AND DRIVER B SIMULTANEOUSLY**

6.1 Proceed internally to the van trailer, leaving all doors closed and alight by the door used for entry.

6.1.1 Between the trailer rake and the power car, check that the drawgear, main reservoir pipe, 3 control cables and two M.A. supply jumpers are correctly connected. Check also that air pipe cocks are open.

6.1.2 On the sides of both power cars.

6.1.2.1 Check that no pipes or cables are attached.

6.1.2.2 Check that no scotches are in position.

6.1.2.3 Check that no tilt chocks are in position.

6.1.2.4 Check for obvious defects and damage.

6.1.3 Between the two power cars, check that the drawgear, main reservoir pipe and three control cables are connected correctly. Check also that the air pipe cocks are open.

6.1.4 Between the van trailer and power car, check that the 3-phase supply jumper and two M.A. supply jumpers are correctly connected.

6.1.5 Proceed in the same direction and check the trailer vehicles as per Section 3.4.

7. DRIVER A

7.1 Enter the driving compartment.

7.1.1 Move the brake controller handle to EMERGENCY.

7.1.2 Insert the master key and move the master switch to AUXILIARIES.

7.1.3 Immediately press and release the AWS reset button.

7.1.4 When the line indicator has illuminated, press and release both M.A. Set START buttons, and check that the auxiliaries indicator on the desk goes out.

7.1.5 Press the indicator light test button and check that all other indicator lights illuminate.

7.1.6 Switch on the marker lights, headlights and tail lights.

7.1.7 When the C-APT warning sounds continuously (normally the second warning), press and release the C-APT reset button. Check that the speed restriction light illuminates for a few seconds and that both C-APT Available lights remain illuminated.

7.2 Leave the compartment by the driver's side door.

7.2.1 Check that the marker lights, headlights and tail lights are illuminated.

7.2.2 Check that the nose end is lowered and SECURE.

7.3 Re-enter the driving compartment by the assistant driver's side door and proceed into the diesel bay.

7.3.1 Check that the diesel auxiliary set test switch is at NORMAL.

7.3.2 Check for obvious defects, particularly that the battery charger is working correctly, and that no MCB's are tripped.

7.3.3 Check that the No.1 axle brake isolating cock is correctly set i.e. open.

7.4 Re-enter the driving compartment.

7.4.1. Check that the AWS, C-APT, DSD and MR.LP. switches are sealed in their operating positions.

7.4.2 Check that the Tow Enable switch is in its NORMAL position.

7.4.3 On the fixed fire extinguisher, check that the electrical connection is made to the firing head, and that the discharge indicator has not operated.

7.4.4 Test Fire Alarm Bell by pressing button.

7.4.5 Check that two 5.4 kg. fire extinguishers are available and sealed.

7.4.6 Check the emergency equipment in accordance with the Rule Book, Section H 3.2

7.4.7 Set the marker lights, a headlight and a tail lamp in accordance with the first movement.

7.4.8 Check that the brake emergency plunger is in the fully raised position.

7.4.9 When the main reservoir presure has reached 8 bar, move the brake controller handle to RUNNING.

7.4.10 Move the brake controller handle to each step and check that the brake pressure rises with each step in accordance with the following table:-

Brake Controller Handle Position	Brake Pressure BAR
RUNNING	0
INITIAL	0.1 – 0.3
2	0.6 – 0.8
3	0.8 – 0.9
4	0.9 – 1.1
5	1.1 – 1.3
6	1.4 – 1.6
FULL SERVICE EMERGENCY	1.9 – 2.2

7.4.11 Move the brake controller handle to RUNNING and fully release the brake.

7.4.12 Fully depress the brake emergency plunger. Check that the brake pressure rises to its maximum.

7.4.13 Lift the brake emergency plunger and check that the duplex pressure gauge reads zero.

7.4.14 Depress the DSD pedal, then move the master switch to FORWARD. Release the DSD pedal and check that the brake pressure rises within a short period.

7.4.15 Move the master switch to OFF and remove the master key.

7.4.16 Authorise Driver B to insert his master key and move his master switch.

8. DRIVER B

8.1 Enter the driving compartment.

8.1.1 When the motor alternator indicator lights illuminate, switch on the marker lights, headlights and tail lights.

8.1.2 Press the indicator light test button and check that all indicator lights illuminate.

8.2 Leave the compartment by the drivers side door.

8.2.1 Check that the marker lights, tail lights, and headlights are illuminated.

8.2.2 Check that the nose end is lowered and SECURE.

8.3 Enter the driving compartment by the assistant driver's side door and pass through to the diesel engine bay.

8.3.1 Check that the diesel alternator (DA) set test switch is at NORMAL.

8.3.2 Check for obvious defects in the diesel engine compartment, particularly that the battery charger is working correctly and that no MCB's are tripped.

8.3.3 Check that the No.1 axle brake isolating cock is correctly set, i.e. open.

8.4 Re-enter the driving compartment.

8.4.1 Repeat items 7.4.1. to 7.4.8.

8.4.2 When Driver A has given authority repeat items 7.1.1 to 7.1.3 and 7.1.7.

8.4.3 Repeat items 7.4.10 to 7.4.14.

8.4.4 Return the master switch to AUXILIARIES.

9. **DRIVER B**, if making the first movement.

9.1 Carry out a brake continuity test in conjunction with a driver, guard or shunter.

9.2 Move the brake controller to FULL SERVICE and release the parking brake.

10. **DRIVER B**, if not making the first movement.

10.1 Move the brake controller to EMERGENCY, move the master switch to OFF and remove the master key.

10.2 Return the brake controller to RUNNING, and using the Duplex gauge, check that the brakes remain applied.

10.3 Authorise Driver A to insert his master key and move his master switch.

11. **DRIVER A**, if making the first movement.

11.1 When Driver B gives authority insert master key, move master switch to AUXILIARIES.

11.2 Immediately press and release the AWS reset button.

11.3 When the C-APT warning sounds continuously (normally the second warning), press and release the C-APT reset button. Check that the speed restriction light illuminates for a few seconds and that both C-APT AVAILABLE lights remain illuminated.

11.4 Carry out a brake continuity test in conjunction with a driver, guard or shunter.

11.5 Move the brake controller to FULL SERVICE and release the parking brake.

PROCEDURE FOR CHANGING THE DIRECTION OF A CLASS 370 TRAIN WHEN BOTH DRIVING COMPARTMENTS ARE MANNED.

The train may be shunted and reversal moves may be made in traffic as follows:-

(a) The Driver who has been moving the train must apply the brakes, move the master switch to OFF, remove the master key, then move the brake controller to RUNNING. The tail light must be switched on and the marker lights and headlight off before the next movement takes place. Authority must then be given to the driver at the opposite end of the train to insert his master key and move his master switch.

(b) The Driver at the opposite end of the train, who is to take control, must partially apply the brake. The tail light must be switched off and the marker lights and headlights must be switched on, before the next movement takes place. After receiving authority from the previous Driver, he must insert his master key and move his master switch to FORWARD.

A CLEAR UNDERSTANDING MUST EXIST BETWEEN THE TWO DRIVERS, IN ORDER TO ENSURE THAT NOT MORE THAN ONE MASTER KEY IS INSERTED ON ANY OCCASION.

WHEN THE TWO DRIVERS ARE AT THE OPPOSITE ENDS OF THE TRAIN, EACH MOVEMENT MUST BE PRECEDED BY A CLEAR UNDERSTANDING ON THE TELEPHONE, REGARDING THE DISTANCE ETC. AND POINT WHERE THE NEXT CHANGE OF DIRECTION WILL TAKE PLACE.

THE GUARD MUST BE INFORMED WHEN THE DRIVING IS TAKING PLACE FROM BOTH DRIVING COMPARTMENTS AND MUST ALSO BE INFORMED WHEN DRIVING IS RESUMED FROM ONE END ONLY.

PROCEDURE FOR ONE DRIVER IMMOBILISING A CLASS 370 TRAIN FOR A PERIOD OF UP TO 4 HOURS WITH A DIFFERENT DRIVER TAKING OVER.

1. With the train stationary, move the brake controller to EMERGENCY.

2. Apply the parking brake.

3. Move the master switch to OFF and remove the key.

4. Return the brake controller handle to RUNNING and using the Duplex gauge, check that the brakes remain applied.

5. Switch a tail light on when necessary, and switch the marker lights, headlights and cab heating off.

6. Enter the diesel engine bay, check for obvious defects particularly that the battery charger is working.

7. Return to the driving compartment, enter all known defects in repair book and switch off all interior lights.

   CLOSE ALL DOORS AND WINDOWS BEFORE LEAVING.

8. Leave the driving compartment by the left hand side door, pass round the end of the car, checking for obvious defects.

9. Walk to the leading van trailer, checking for obvious defects.

10. Enter the leading van trailer, and check for obvious defects.

11. Pass through to the leading power car, note if any faults are indicated and check that the battery charger is working.

12. Pass through to the trailing power car, note if any faults are indicated and check that the battery charger is working.

13. Pass through to the trailing van trailer, checking for obvious defects.

14. Alight on the right hand side and proceed towards rear of the train, checking for obvious defects.

15. Enter the rear driving compartment on the same side and proceed into the diesel engine bay.

16. Check for obvious defects, particularly that the battery charger is working.

17. Return to the driving compartment, enter all known defects in repair book. Switch a tail light on when necessary.

    CLOSE ALL DOORS AND WINDOWS BEFORE LEAVING.

18. Leave the rear driving compartment by the door used for entry, pass round the end of the car and check for obvious defects.

19. Walk to the front of the train, checking for obvious defects, and enter all remaining defects in Repair Book in leading driving compartment.

    CLOSE ALL DOORS AND WINDOWS BEFORE LEAVING.

    REPORT ALL KNOWN DEFECTS BY TELEPHONE, IF THE TRAIN IS STABLED AWAY FROM A MAINTENANCE DEPOT.

PROCEDURE FOR ONE DRIVER TAKING OVER A CLASS 370 TRAIN WHICH HAS BEEN IMMOBILISED FOR UP TO FOUR HOURS AND PREVIOUSLY WORKED BY A DIFFERENT DRIVER.

1. Enter the leading driving compartment.

   1.1 Check that the brake emergency plunger is in the fully raised position.

   1.2 Check that the brake control handle is at RUNNING.

1.3 Insert the master key and move the master switch to AUXILIARIES.

1.4 Check that the parking brake is applied.

1.5 Move the master switch to OFF and remove the master key.

1.6 Switch on the marker lights and one headlight.

1.7 Check that the repair book contains no serious defects that have not been signed off.

2. Leave the driving compartment by the assistant driver's side door and proceed towards the power car(s).

2.1 Check that no brakes are isolated.

3. Enter the leading van trailer.

3.1 Check that the brake isolating cock is correctly set i.e. open.

3.2 Check that the Compressor and M.A. set are running and that no faults are indicated.

4. Pass through to the leading power car leaving all doors closed.

4.1 Check that all four brake isolating cocks are correctly set, i.e. open.

4.2 Check that the traction control isolator is in the 'ON' position, that all MCB's are set, test fuses 1-11 with test switches and lamp and that no faults are indicated.

4.3 Check that the battery charger is working correctly.

4.4 On the fixed fire extinguisher, check that the electrical connection is made to the firing head, and that the discharge indicator has not operated.

5. Pass through to the trailing power car leaving all doors closed.

5.1 On the fixed fire extinguisher, check that the electrical connection is made to the firing head, and that the discharge indicator has not operated.

5.2 Check that all four brake isolating cocks are correctly set, i.e. open.

5.3 Check that the battery charger is working correctly.

5.4 Check that the traction control isolator is in the ON position, that all MCB's are set, test fuses 1-11 with test switch and lamp, and that no faults are indicated.

6. Proceed to the rear van trailer, leaving all doors closed.

6.1 Check that the compressor and M.A. set are running and that no faults are indicated.

6.2 Check that the brake isolating cock is correctly set i.e. open.

7. Alight on the right hand side and proceed towards the rear of the train.

7.1 Check that no brakes are isolated.

8. Enter the driving compartment of the rear driving trailer and pass through to the diesel engine bay.

8.1 Check that the diesel auxiliary set test switch is at NORMAL.

8.2 Check for obvious defects, particularly that the battery charger is working correctly.

8.3 Check that the No.1 axle brake isolating cock is correctly set i.e. open.

9. Re-enter the driving compartment

9.1 Check that the AWS, C-APT, DSD and MRLP isolating switches are sealed in their operating positions.

9.2 Check that the Tow Enable switch is in its NORMAL position.

9.3 On the fixed fire extinguisher, check that the electrical connection is made to the firing head, and that the discharge indicator has not operated.

9.4 Move the brake controller handle to EMERGENCY.

9.5 Insert the master key and move the master switch to AUXILIARIES.

9.6 Immediately press and release the AWS reset button.

9.7 Press the indicator light test button and check that all indicator lights illuminate.

9.8 Test Fire Alarm System by pressing button.

9.9 Check that two 5.4 kg fire extinguishers are available and sealed.

9.10 Check the emergency equipment in accordance with the Rule Book, Section H 3.2.

9.11 When the C-APT warning sound continuously (normally the second warning), press and release the C-APT reset button. Check that the speed restriction light illuminates for a few seconds and that both C-APT AVAILABLE lights remain illuminated.

9.12 Check that the marker lights and headlights are switched off and switch on a tail light.

9.13 Check that the brake emergency plunger is in the fully raised position.

9.14 With the main reservoir pressure at least 8.0 bar, move the brake controller handle to RUNNING, and check that the brake is fully released.

9.15 Move the brake controller handle to EMERGENCY and check that the brake pressure rises to its maximum.

9.16 Move the brake controller handle to RUNNING and fully release the brake.

9.17 Fully depress the brake emergency plunger. Check that the brake pressure rises to its maximum.

9.18 Lift the brake emergency plunger and check that the duplex pressure gauge reads zero.

9.19 Move the master switch to OFF and remove the master key.

9.20 Check that the repair book contains no serious defects that have not been signed off.

10. Leave the rear driving compartment, by the assistant driver's side door and ensure that all lights and 'boost' heat switched off and all doors and windows are closed. Proceed towards the front of the train on the left hand side.

10.1 Check that no brakes are isolated.

11. Check that the marker lights and one headlight are illuminated on the leading end.

12. Enter the leading driving compartment by the assistant driver's side door and pass through to the diesel engine bay.

    12.1 Check that the diesel alternator (DA) set test switch is at NORMAL.

    12.2 Check for obvious defects in the diesel engine compartment, particularly that the battery charger is working correctly.

    12.3 Check that the No.1 axle brake isolating cock is correctly set, i.e. open.

13. Re-enter the driving compartment.

    13.1 Repeat clauses 9.1 to 9.11.

    13.2 Repeat clauses 9.14 to 9.18.

    13.3 Depress the DSD pedal, then move the master switch to FORWARD. Release the DSD pedal and check that the brake pressure rises within a short period.

    13.4 Move the brake controller handle to FULL SERVICE and release the parking brake.