

GB967-090-XXX

**TECHNICAL MANUAL
SPARE PARTS CATALOGUE**



GB BARBERI
AEROSPACE • SPECIAL VEHICLES

FUEL SYSTEM TEST STAND

APTS

P/N GB967-090-000

P/N GB967-090-100

P/N GB967-090-110

P/N GB967-090-200

P/N GB967-090-300



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SECTION I

INTRODUCTION

1.1 INTRODUCTION

This technical manual describes the FUEL SYSTEM TEST STAND, identified by the P/N GB967-090-XXX (hereinafter only “APTS”), designed and manufactured by GB BARBERI s.r.l. - Via Rosselli, 30 - Sesto Calende (VA).

This manual is divided into four sections, as follows:

Section I - Introduction, Purpose, Description.

This section describes the equipment, its purpose and its distinctive features.

Section II - Working Instructions.

This section includes all the instructions required to use the equipment correctly.

Section III - Maintenance and Troubleshooting

This section describes all the operations to carry out a correct maintenance of the equipment. A troubleshooting table follows.

Section IV - List of spare Parts

This section includes the list of spare parts.

1.2 PURPOSE

The purpose of this manual is to inform about the correct employment of the APTS, in compliance with what foreseen in its design hypothesis, to provide the main technical features, to allow managing its scheduled and special maintenance and an easy troubleshooting.

This manual can also be used to train the personnel in charge with the employment of the APTS, to schedule inspections and maintenance and to facilitate the solution of technical problems, which could arise during its employment.

1.2.1 Who is the Manual intended for

This instruction manual is intended for all the people who have to handle, employ and carry out testing and maintenance operations on the APTS.

In particular this manual is addressed to the responsible/managerial staff and to the operative staff of the structure where the equipment in object is employed.

1.2.2 Limits

Given the commitment and the professionalism required in the scope where the APTS is employed, the staff using it must have an adequate and specific training, a kind of preparation that this manual cannot undoubtedly replace, neither partially nor completely, but only integrate.

This manual gives indications and instructions for the employment of the equipment, which integrate, but are not intended to replace, standards, regulations, decrees or laws, both of general and specific nature, in force in the country where the equipment is employed.

It's anyway appropriate that operators should follow thoroughly the information given in this manual.



ATTENTION



The Company GB BARBERI s.r.l. disclaim all responsibility in case this equipment isn't employed in conformity with the instructions of this manual or in case of incorrect feeding or installation and in contrast with the instructions included in this manual.

1.2.3. Where and how to keep this Manual

This manual must be always available as a reference during the employment of APTS.

Therefore it must be kept, well identifiable and easily reachable, in the place of usual employment of the equipment, timely protected from the atmospheric agents, which could deteriorate it.

This manual should be considered as an integral part of the equipment and must be kept until the final disposal of the same.

1.2.4. Updating

This manual is handed together with the APTS and refers to the equipment in the configuration it has been assembled in.

It cannot be considered as inadequate in case of improvements of the components forming the equipment, but it must be updated through addition or replacement of pages, which are supplied by the manufacturer in case of modifications, if any.

1.2.5. Applicability

This manual is applicable to:

- - GB967-090-100
- - GB967-090-110 Equiv. 109061338-105A687B
- - GB967-090-200
- - GB967-090-300

1.3 EC MARKING

The EC marking is applied as a guarantee that the design, the manufacture and the equipment have been carried out in compliance with 42/2006/CE.

1.3.1 EC Mark Plate

Along with the “EC” symbol, a plate is applied to identify in full both the manufacturer, by indicating their logo and address, and the equipment, by indicating its P/N, its S/N, the date of manufacture and data regarding its main design features.

1.3.2 Position of the Plate

The EC mark must be in a well visible position on the equipment. In the specific case of the APTS, the “EC” mark is positioned close to the identification plate of the complete equipment; this plate, besides indicating the P/N and the S/N, points out the main features and the general scheduled reconditioning carried out.

1.4 DESCRIPTION (ref. fig. 1.1)

1.4.1. PURPOSE.

The tank tightness tester has been designed to carry out a correct checking of the functionality of tank tightness, with pressure tests included between 0 and 140 mbar.

The equipment is composed of test stand, in which all the components required to carry out tests are housed, installed on a trolley with a cabinet.

Furthermore, the APTS model GB967-090-300 is equipped with a series of special designed adapter sets for aircraft connections

COMPOSITION OF GB967-090-300 (Ref Fig 1.1):

| POS. | PART NUMBER | DESCRIPTION | Q.TY |
|------|---|-------------------------------|------|
| 1 | GB967-090-200 3G2800H00133A692A Esp. 3 | FUEL SYSTEM TEST STAND | 1 |
| 2 | GB967-800-085 3G2800H00133A692C Esp. 2 | SET ADAPTER LEAKAGE FUEL TEST | 1 |
| 3 | GB967-800-080 3G2800H00133A692B Esp. 2 | SET ADAPTER FUEL DRY TEST | 1 |
| 4 | GB818-000-000 TECO6-239-101 Esp.1 | DIGITAL THERMOIGROMETER | 1 |

OPTIONAL (Ref. Fig. 1.2):

| POS. | PART NUMBER | DESCRIPTION | Q.TY |
|------|---|-----------------------|------|
| 5 | GB967-800-088 8G2800H00131A692A Esp. 2 | SET ADAPTER FUEL TEST | 1 |
| 6 | GB967-800-089 8G2800H00131A692A Esp. 3 | SET ADAPTER FUEL TEST | 1 |

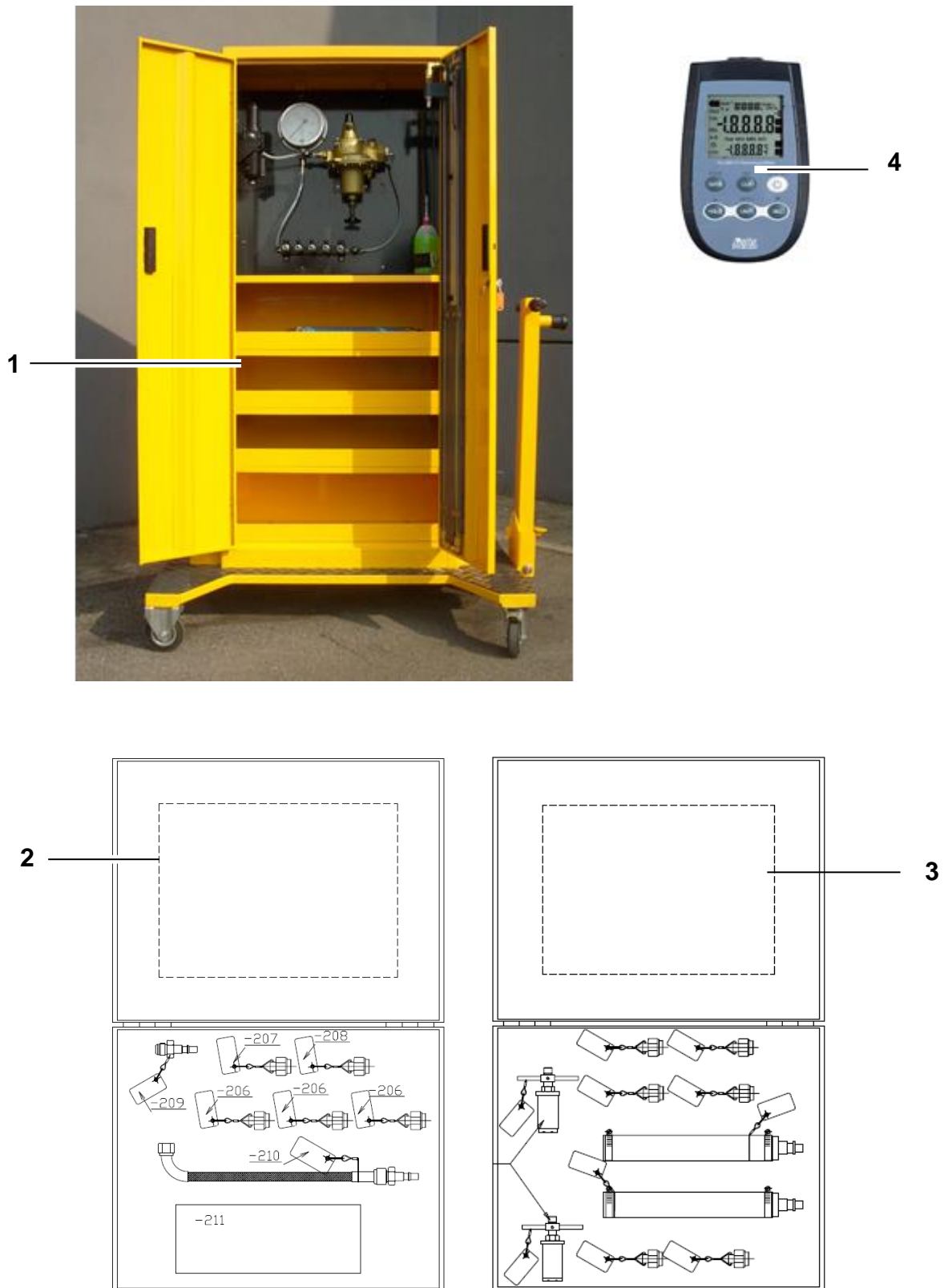


Fig. 1.1 APTS GB967-090-300

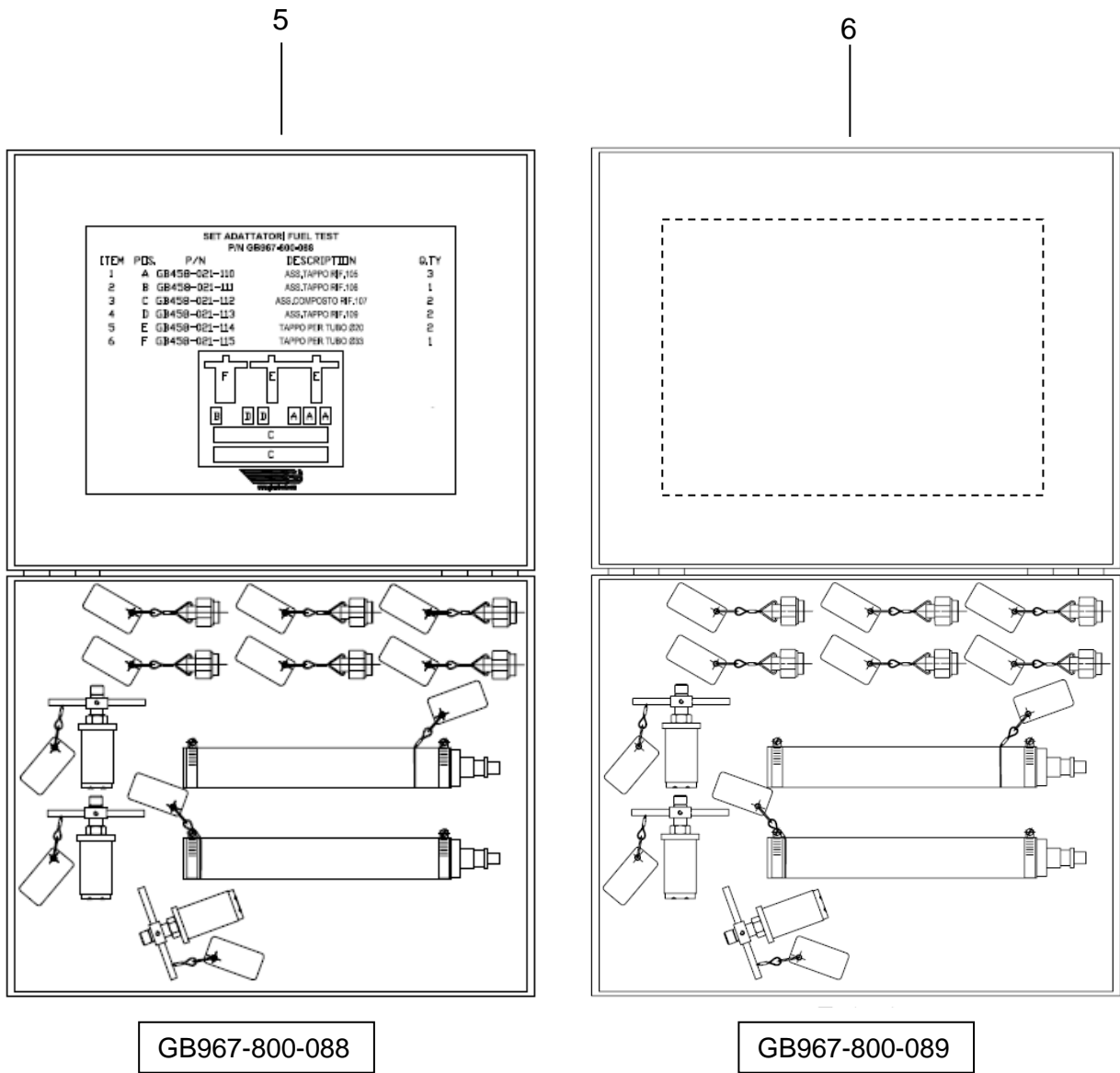


Fig. 1.2 OPTIONAL

1.5 MAIN CHARACTERISTICS

Table 1.1 MAIN CHARACTERISTICS

DIMENSIONAL CHARACTERISTICS

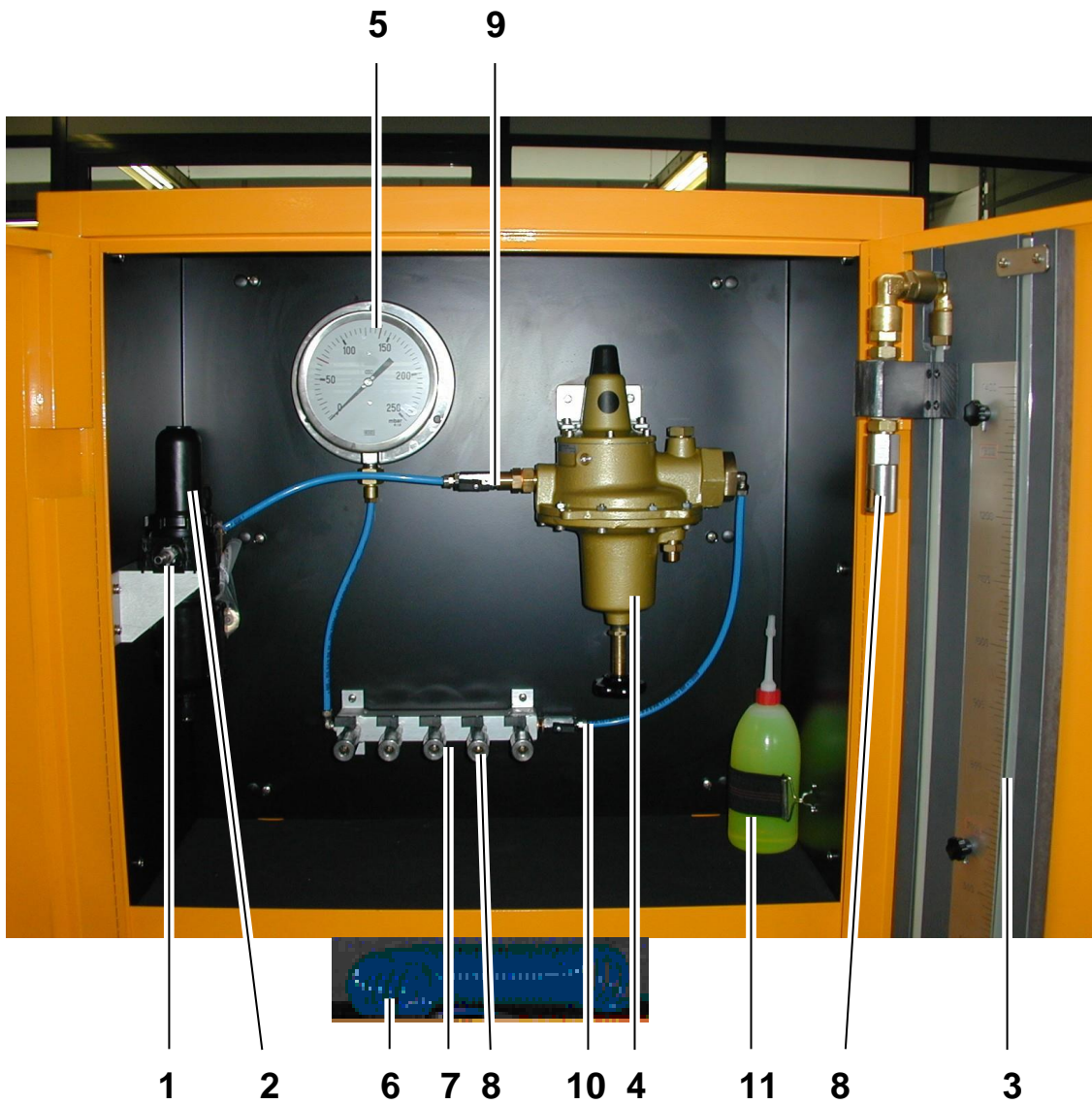
| | |
|------------------------------|---------|
| HEIGHT | 2000 mm |
| LENGTH | 1200 mm |
| WIDTH | 800 mm |
| WEIGHT | 130 Kg |
| WEIGHT (GB967-090-110) | 195 Kg |

FUNCTIONAL CHARACTERISTICS

| | |
|------------------------------|--------------|
| MAX INLET AIR PRESSURE | 12 BARS |
| OUTFLOWING PRESSURE | 0 ÷ 140 MBAR |

EQUIPMENT

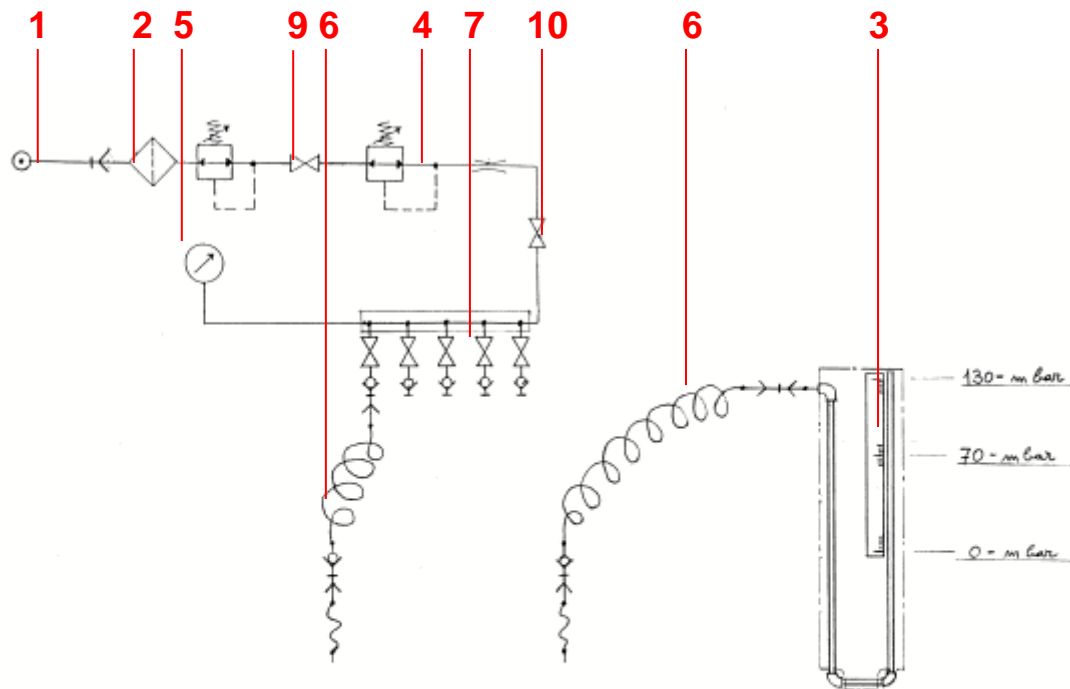
| | |
|------------------------------------|------|
| DELIVERY HOSE, D8 x 6 RILSAN | 15 m |
|------------------------------------|------|



- 1 AIR CONNECTION FROM THE MAINS
- 2 CUTOFF FILTER GROUP
- 3 WATER COLUMN
- 4 PRESSURE CONTROL VALVE
- 5 FEEDING PRESSURE MANOMETER

- 6 DELIVERY HOSES
- 7 CUTOFF TAPS
- 8 FEMALE QUICK SEMICONNECTIONS
- 9 TAP EXCL. REDUCING VALVE
- 10 TAP EXCL. CUTOFF TAPS
- 11 MEASURE LIQUID BOTTLE

Fig. 1.3 PNEUMATIC SYSTEM COMPONENTS



- 1 AIR CONNECTION FROM THE MAINS
- 2 CUTOFF FILTER GROUP
- 3 WATER COLUMN
- 4 PRESSURE CONTROL VALVE
- 5 FEEDING PRESSURE MANOMETER
- 6 DELIVERY HOSES
- 7 CUTOFF TAPS
- 8 FEMALE QUICK SEMICONNECTIONS
- 9 TAP EXCLUDING REDUCING VALVE
- 10 TAP EXCLUDING CUTOFF TAPS

Fig. 1.4 PNEUMATIC SYSTEM DIAGRAM

SECTION II

WORKING INSTRUCTIONS

2.1 GENERAL

Before using the equipment, please read all the instructions included in this section meticulously and carry out scheduled inspections and functionality controls indicated in the Table 3.1.



ATTENTION



**THE INSTRUCTIONS INDICATED IN THIS SECTION
CONTAIN ONLY THE INSTRUCTIONS FOR USE OF
APTS AND DON'T REPLACE THE TESTING
PROCEDURES FOR THE TANKS.**

2.2 PRELIMINARY OPERATION

2.2.1 CHECK-IN CONTROL

The APTS is supplied in suitable conditions to be handled and stored.

The packing and the protection against the atmospheric agents could vary from time to time, depending on the agreements for the supplying.

The Packing and the protections against the atmospheric agents could vary, depending on the means of transport, the employment or storage environment, in compliance with the contractual agreements for the supplying.

Carry out the unpacking operations with care and check that damages haven't occurred during the transport. In particular, verify that all the components have been fixed correctly, that there aren't any bruises on them and that the surface protection treatments are perfectly integral and don't have scratches.

Do not destroy the package, if it can be reused, but keep it for other deliveries, if any, or for the storage.

2.2.2 PREPARATION FOR EMPLOYMENT

The APTS is supplied wholly tested and ready to be used.

It is appropriate, however, that before using the equipment is checking the correct fluid level contained in the graduated bar;

2.2.3 PREPARATION FOR STORAGE

In case of a long period when the equipment is left unused, proceed as follows:

- clean all the components of the equipment carefully,
- protect the APTS from dust with a plastic cover;
- prepare an informative label for the staff in charge for the handling of the APTS and apply it, so that it can be seen easily.

2.2.4 PREPARATION FOR DELIVERY

In order to prepare the APTS for a delivery, proceed as follows:

- carry out the protection procedure indicated in the paragraph 2.4, "Preparation for the storage"
- if foreseen, protect the equipment with packing, in compliance with the consignee's requirements.

2.3 OPERATIVE FUNCTIONING

2.3.1 Personnel required

For this subject, please refer to the applicable paragraph of the technical manual concerning aircraft operating and maintenance.

2.3.2 Controls before Use

Before each employment the tank the experienced staff, to ascertain its good state of preservation, must inspect tightness APTS merely visually.

The staff must also verify whether the equipment has been correctly submitted to the scheduled inspections indicated in this manual, in the paragraph 3.2.

Note:

Adjustments or fittings aren't provided for before its employment.

The intended scheduled inspections must be carried out with the utmost care.

If verifications or fittings are required, the equipment cannot be used, but it must be sent to the appropriate maintenance center to be inspected by qualified staff.



ATTENTION



The Company GB BARBERI s.r.l. disclaims all responsibility in case this equipment isn't employed in conformity with the instructions of this manual or in case the test stand is used jointed to the other equipments that are not manufactured according to Machinery Directive 2006/42/CE.

2.3.3 WORKING INSTRUCTIONS (ref. fig. 2.1 - 2.2)

For a correct employment of the tank pressure tester proceed as follows:

NOTE

REMOVE CAP. (12)

BEFORE LINKING THE AIR FROM THE MAINS THROUGH THE CONNECTION (1) CHECK THAT THE KNOB OF THE CONTROL VALVE (4) IS COMPLETELY LOOSENED, ROTATED COUNTERCLOCKWISE, THAT THE CUTOFF TAPS ARE (7) CLOSED, THAT (9) AND (10) TAPS ARE OPEN.

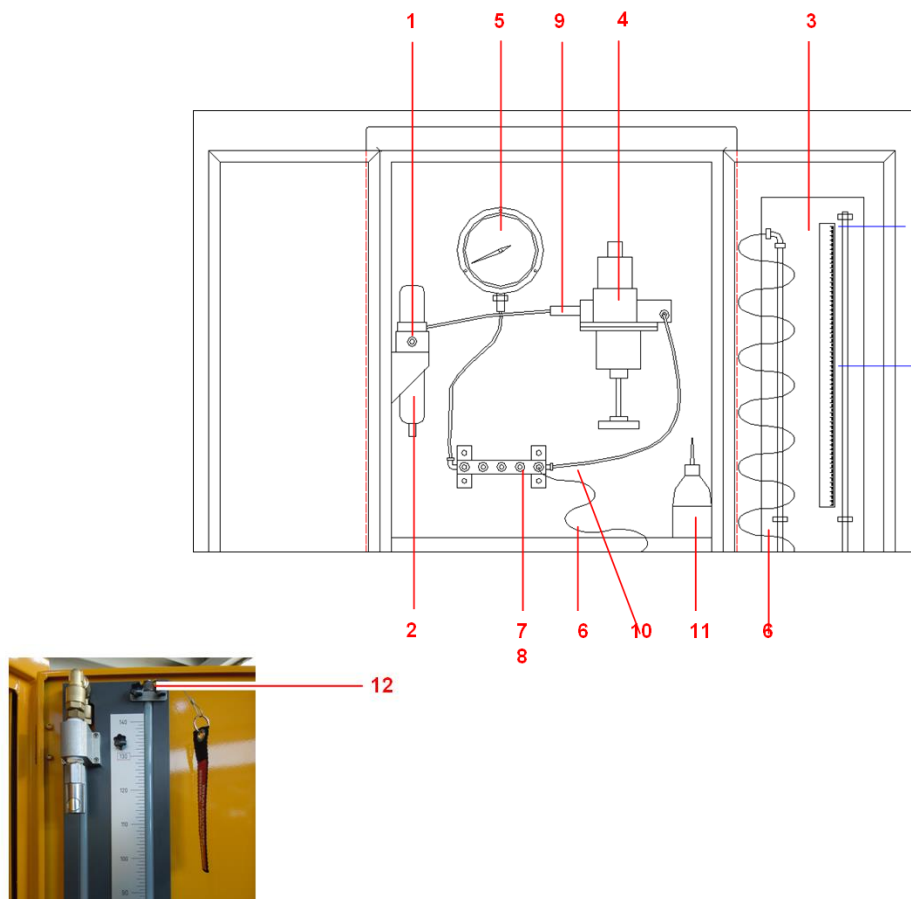


Fig. 2.1 CONTROL PANEL

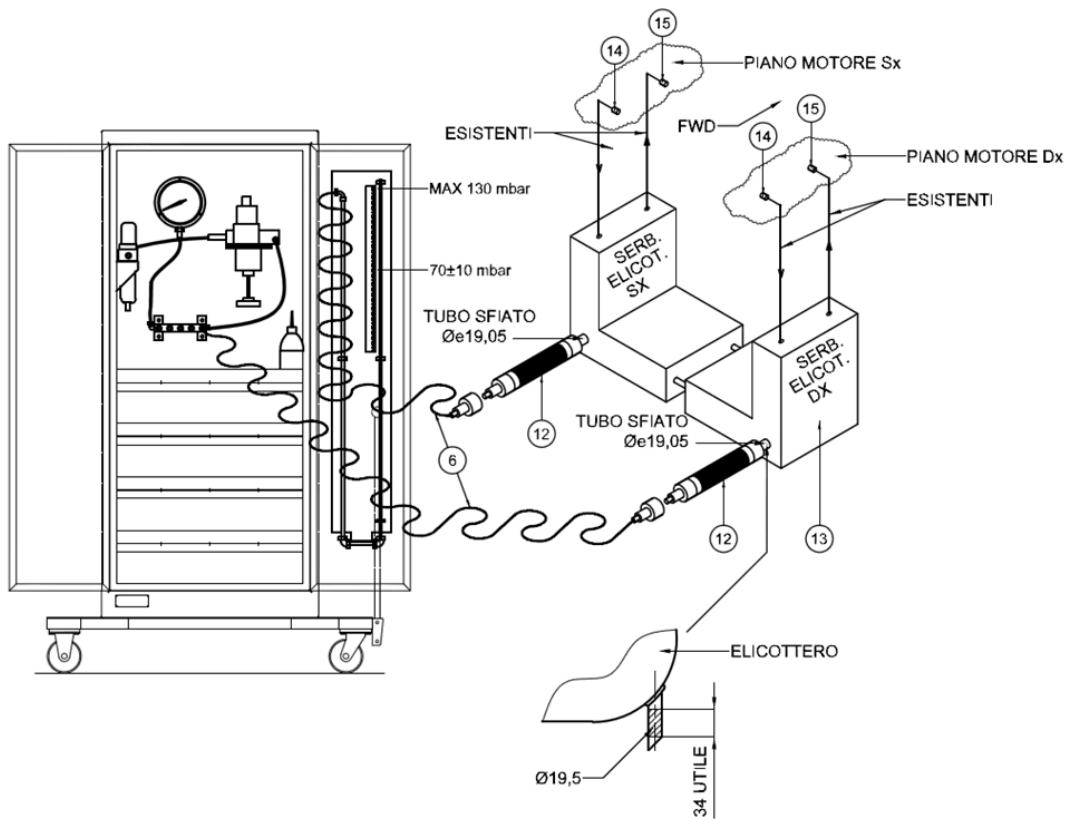


Fig. 2.2: LEAKAGE FUEL TEST CONFIGURATION
(USING KIT 967-800-085)

- 1) link up the air from the mains to the connection (1), with pressure included between 3 and 12 bars;
- 2) then, by acting on the knob of the pressure control valve (4), adjust the pressure to the value required by the specific control procedure for the test,
- 3) check the test pressure on the pressure gauge (5);
- 4) arrange the test tank, as indicated by the specific procedures, and in particular verify that the breather pipes are shut with suitable stoppers:
 - n°2 P/N GB 470 875 100
 - n°2 P/N GB 490 006 201
- 5) connect the hose (6) to one cutoff taps (7) and connect the other side to one of the two testing tanks putting between them one linking tube P/N GB 458 021 097 (12)
- 6) prearrange the water column unit (3) as descript:
 - remove the cap on the upper side of the measure tube of the water column unit;
 - restore, if necessary, the measure liquid level using the bottle (11) so that the measure liquid level is near the zero of the graduated scale;
 - set the graduated scale position by acting on the clamping knobs to set the zero mbar indication with the level reached by the water column
- 7) connect the other aircraft tank to the water column unit (3) through the second delivery hose (6) putting between them one linking tube P/N GB 458 021 097 (12);
- 8) open the cutoff tap (7) used and wait that the pressure of the pressure gauge (5) and the water column unit (3) settle to the value set before;
- 9) close the cutoff tap (10) and check that, in the period of time indicated on the control procedure (in example 20 minutes), there are no bigger losses of pressure than indicated on the control procedure. During this period and in this configuration the checking of the value of pressurization can be verified both at the water column (3) and at the pressure gauge (5).

10) After positive testing operations restore initial configurations as indicated:

- disconnect the delivery hose or hoses (6) from the tank;
- disconnect the delivery hose of the water column (6) from the tank;
- close the tap/s (7) used,
- open the tap (10),
- by operating on the control valve (4), reduce pressure to a value close to zero, by unscrewing the knob of the same valve completely;
- disconnect the air from the mains from its connection (1)
- put the cap back on the upper side of the measure tube of the water column unit;

11) if the testing operations return negative response is necessary to discover the failed tank using the tank tester adaptor P/N GB 458 021 096.

Now proceed as indicated:

- disconnect both side of the two aircraft tanks linking tube
- connect the tank tester adaptor P/N GB 458 021 096 to the just released pipe fitting of one of the two tanks
- repeat the test as described from the 2.7.3 to the 2.7.7 jointing the hose (6) of the water column to the free side of the tank tester adaptor P/N GB 458 021 096, and not to the linking tube P/N GB 458 021 097, so to verify the efficiency or the non conformity.
- repeat the same procedure of the 2.7.9 to the other tank. Now is possible to verify if the non conformity is referred to one or both aircraft tanks.
- end the test as indicated in the point 8

2.3.4 STORAGE AFTER USE

After the employment of the APTS, before storing it, it's necessary to verify very carefully that it hasn't suffered damages during the employment.

After the above-mentioned inspection, cover the APTS and store it in a suitable place to protect it from the influence of atmospheric agents.

2.3.5 RESIDUAL DANGER AND EMERGENCY CONDITIONS

Before connecting / disconnecting the compressed air piping, always ensure that pressure is no longer present in the circuit.

Check before and after the use of the hose lines must not have cuts or scratches.

2.4 INSTRUCTIONS FOR MOUNTING AND TEST PROCEDURE

2.4.1 MOUNTING

In order to assemble the APTS are not requested specific tools but only regular tools

Particular attention must be paid in the assembly of the adapters, to install the piping that compose the pneumatic system.

2.4.2 TEST PROCEDURE

The test procedure of the APTS provides:

control identification data

visual inspection

functional test

- a) The check of the identification data consists in verifying that the plate present and showing the following data:

CE Mark

Manufacturer NCage:A 3789

Denomination:..... FUEL SYSTEM TEST STAND

Identification Number (P/N):..... GB967-090-XXX

Serial Number (S/N):

Nato Number (NUC):

Date of manufacturing (quarter / year):

Additional data

Fluid to be used Demineralized water with colorant

- b) The visual check ascertain that the superficial and protective treatments are in good conditions, and that all accessories are present.

- Final Painting or protective treatment, must be uniform, without any scrap or oxidation.
- **Equipment for model -300 only**, consist of:
 - GB818-000-000 THERMOIGROMETER
 - GB967-800-085 SET ADAPTER LEAKAGE FUEL TEST
 - GB967-800-080 SET ADATPTER FUEL DRY TEST

- c) The functional test is a leak test of the (Ref Fig 2.1):
Close the valves (7) and open the taps (9) and (10);
Rotate Counterclockwise control valve (4); Connect the air from the junction network (1) and check through the control valve (4) that it covers the entire adjustment range of 0 to 140 mbar, reading the value on the gauge (5); To ensure that no leaks from the need to adjust the pressure to the maximum value of 140 mbar, acting on the control valve (4) and then close the valve (9) and check that the indication of the pressure gauge (5) does not change.

SECTION III

MAINTENANCE AND TROUBLESHOOTING

3.1 OVERVIEW

3.1.1 GENERAL

A suitable scheduled maintenance of the equipment will extend its operative life and assure functioning without problems and uninterrupted availability.



ATTENTION



The components showing even the slightest permanent deformity must be immediately replaced and the whole equipment must be tested accurately before its subsequent re-employment.



ATTENTION



Repairing interventions aren't allowed on any of the parts forming the equipment; only the replacement of an item that is going to have a failure is permitted.

3.1.2 PERIODIC MAINTENANCE

3.1.2.1 Check of the fluid level

Before using the APTS is recommended to check the liquid level in the column, and check the calibration of the instruments.

3.1.2.2 Recording of the maintenance interventions

Write the date and the result of the tests carried out on the Maintenance Book, the only document that demonstrates the APTS is in good maintenance conditions.

3.1.3. PERIODICAL MAINTENANCE AND REPAIRS

No service is allowed on the elements which form the APTS, described in this manual.

Only replace of the damaged part is allowed, However the jack must be checked accurately after replacement.

All maintenance operations must be registered on the maintenance book of the product.



ATTENTION



Company GB BARBERI s.r.l. declines any responsibility when the APTS is used over the limits previewed by the project or it's used together with aircrafts different from the ones planned.

Barberi's firm declines any responsibility also for legal aspect or in concern with the safety responsibility regulations in force and declines any responsibility on the behalf of the builder for damages due to the use of the product when the product itself hasn't been subjected to the periodical maintenance (Ref. Table 3.1)

3.1.4 TEST OF THE APTS AFTER A MAINTENANCE OR SERVICE

No particular tests are previewed after maintenance operations.

If one or more components of the pneumatic system have been replaced
The whole APTS must be tested as specified at paragraph 2.4.2.

Table 3.1 Scheduled Maintenance

| RECURRENCE | COMPONENT | OPERATION |
|---------------------------------|--|--|
| BEFORE EVERY USE | connecting hoses | verify that they are integral, without cuts, scratches and abrasions |
| | water column unit | visually check the fluid level, fill up if necessary |
| EVERY 12 MOUNTHS FROM FIRST USE | gauge | calibrate |
| | filter | verify the functionality and integrity; replace if necessart |
| EVERY 72 MOUNTHS | filter | replace |
| | thermohygtometeter | calibrate |
| | connecting hoses GB529-850-100 (2) GB458-021-097 (2) | replace |

3.2 TROUBLESHOOTING

In this paragraph the most common inconveniences and their possible applicable remedies are indicated.

Table 3.2 Troubleshooting

| FAILURE | POSSIBLE CAUSE | REMEDY |
|---------------------------------------|--|---|
| lack of outflowing pressure | insufficient feeding pressure | guarantee at least 3 bars inflow |
| Irregular adjustment of pressure | defective pressure reducing valve (ref. 3 fig. 4.1) | replace the valve |
| Outflowing pressure set is not steady | leaks in the pipes | shut the connections, check pipes, hoses and quick connections. |
| | defective cutoff tap (ref. 7 fig. 4.1) and/or (9) (10) taps used | replace the taps |

3.3 SETTING OUT OF WORK, DISMANTLEMENT AND DEMOLITION

All damaged, not operating or worn equipment must be set out of work.

About a correct demolition it's necessary to follow these instructions:

- 1) If it's possible remove all plastic materials and dispose them along with solid waste, according to the standards in force in your Country.
- 2) All steel components and related alloys must be disposed in compliance with the standards in force in your Country, or must be given to companies dealing in metals to be recycled.

SECTION IV

LIST OF SPARE PARTS

4.1 GENERAL

This section includes the list of spare parts of the APTS.

4.2 USE OF THE SPARE PARTS LIST

The columns contained in the spare parts list have the following meanings:

POS. COLUMN

In this column the position number, namely the number used to specify a detail in an illustration, is indicated.

REFERENCE N° (P/N) COLUMN

In this column the number of the specified spare part is indicated.

DESCRIPTION COLUMN

In this column the denomination of the spare part or of the unit is indicated.

QUANTITY COLUMN

The quantity indicated in this column refers to the number of parts required to complete a unit or under unit.

RECOMMENDED SPARE PARTS COLUMN

The letter "X" in this column identifies the recommended spare parts.

NOTE

ANY REQUESTS OF SPARE PARTS SHOULD INDICATE THE PART REFERENCE NUMBER (P/N) AND THE REGISTRATION NUMBER (S/N) OF THE UNIT IT WAS REQUIRED FOR.

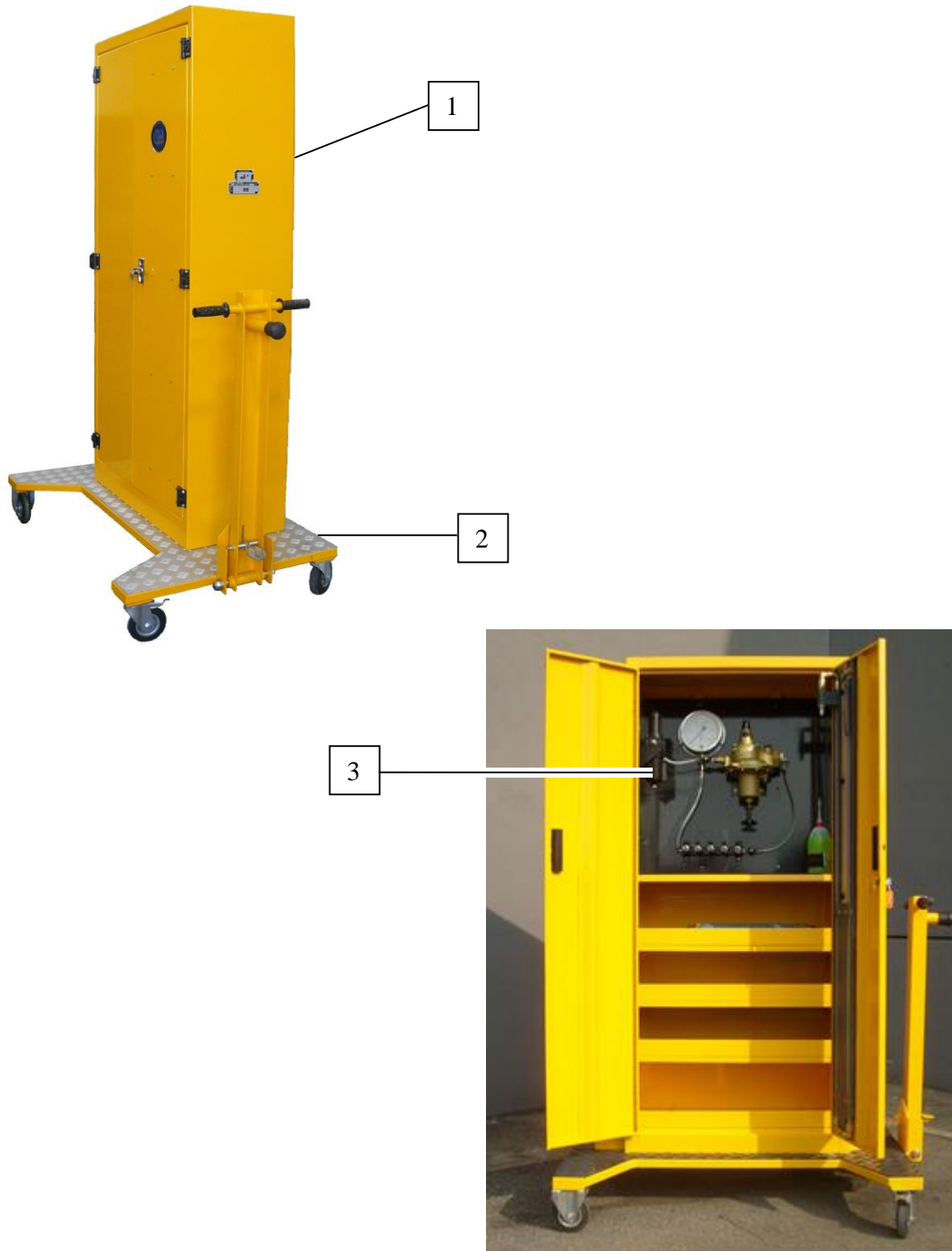


FIG. 4.1: APTS PN GB967-090-100/200/300 ASSEMBLY

TABELLA 4.1: ASSIEME APTS PN GB967-090-000/100/200/300 (ref. fig. 4.1)

| POS | N° DI RIFERIMENTO | DESCRIZIONE | Q.TA' |
|------------|--------------------------|---|--------------|
| 1 | GB967-800-078 | ASSIEME ARMADIO | 1 |
| 2 | GB967-800-079 | ASS.CARRELLO | 1 |
| 3 | GB601-045-000 | ASSIEME IMPIANTO PNEUMATICO (-100) | 1 |
| | GB601-045-100 | ASSIEME IMPIANTO PNEUMATICO (-200 / -300) | 1 |

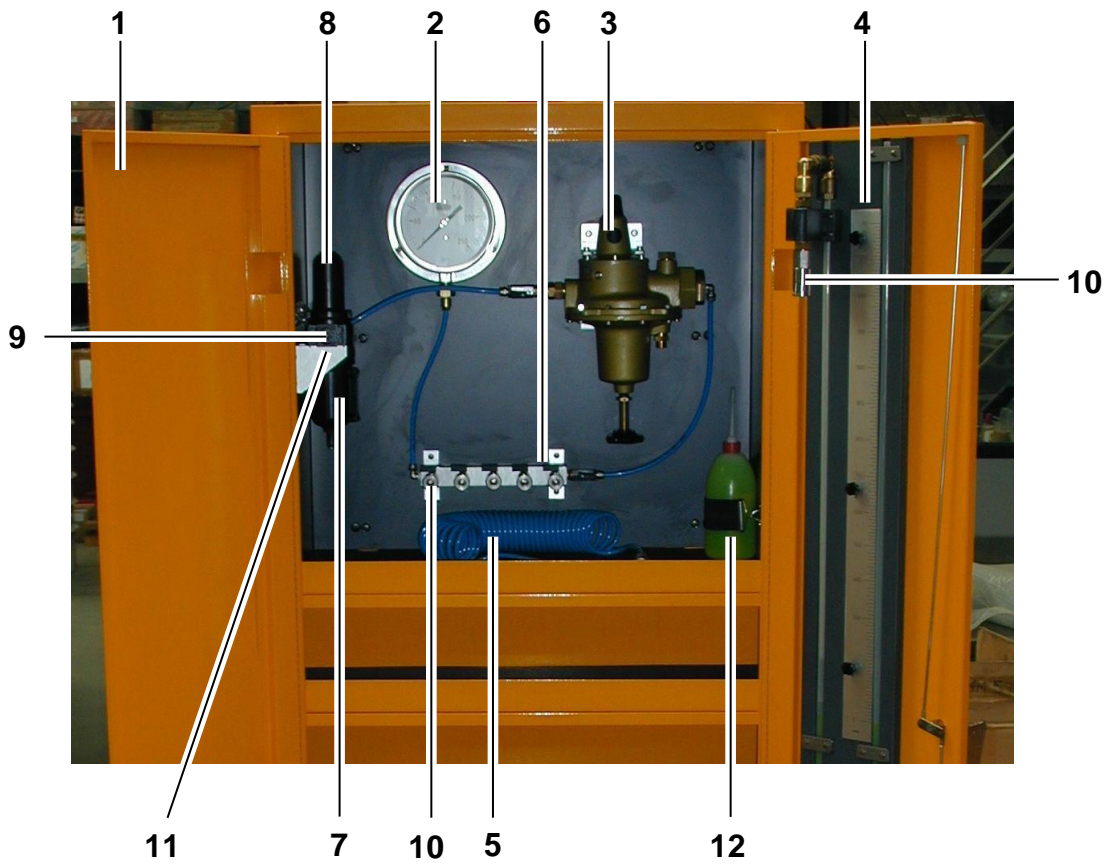


Fig. 4.2 APTS PNEUMATIC CIRCUIT

TABLE 4.2 APTS PNEUMATIC CIRCUIT (ref. fig. 4.2)

| POS | REF. NUMBER | DESCRIPTION | Q.TY |
|------------|--------------------|---|-------------|
| 1 | GB967-800-078 | CASE | 1 |
| 2 | GB802-164-200 | PRESSURE GAUGE | 1 |
| 3 | GB645-000-200 | PRESURE ADJUSTMENT | 1 |
| 4 | GB808-070-200 | WATER COLUMN ASSY | 1 |
| 5 | GB529-850-100 | DELIVERY FLEX HOSE | 2 |
| 6 | GB652-030-300 | SHUT OFF VALVE | 7 |
| 7 | GB671-075-000 | FILTER | 1 |
| 8 | GB672-075-100 | FILTER ELEMENT | 1 |
| 9 | GB487-050-250 | HALF QUICK COUPLING, MALE | 1 |
| 10 | GB487-050-350 | HALF QUICK COUPLING, FEMALE | 6 |
| 11 | GB647-600-006 | PRESSURE REDUCING VALVE | 1 |
| 12 | GB230-406-000 | PLASTIC BASKET | 1 |
| 13 | GB818-000-000 | THERMAL HYGROMETER (ONLY ON MODEL -300) | 1 |
| 13.1 | GB999-999-030 | CALIBRATION CERTIFICATE (ON REQUEST) | 1 |

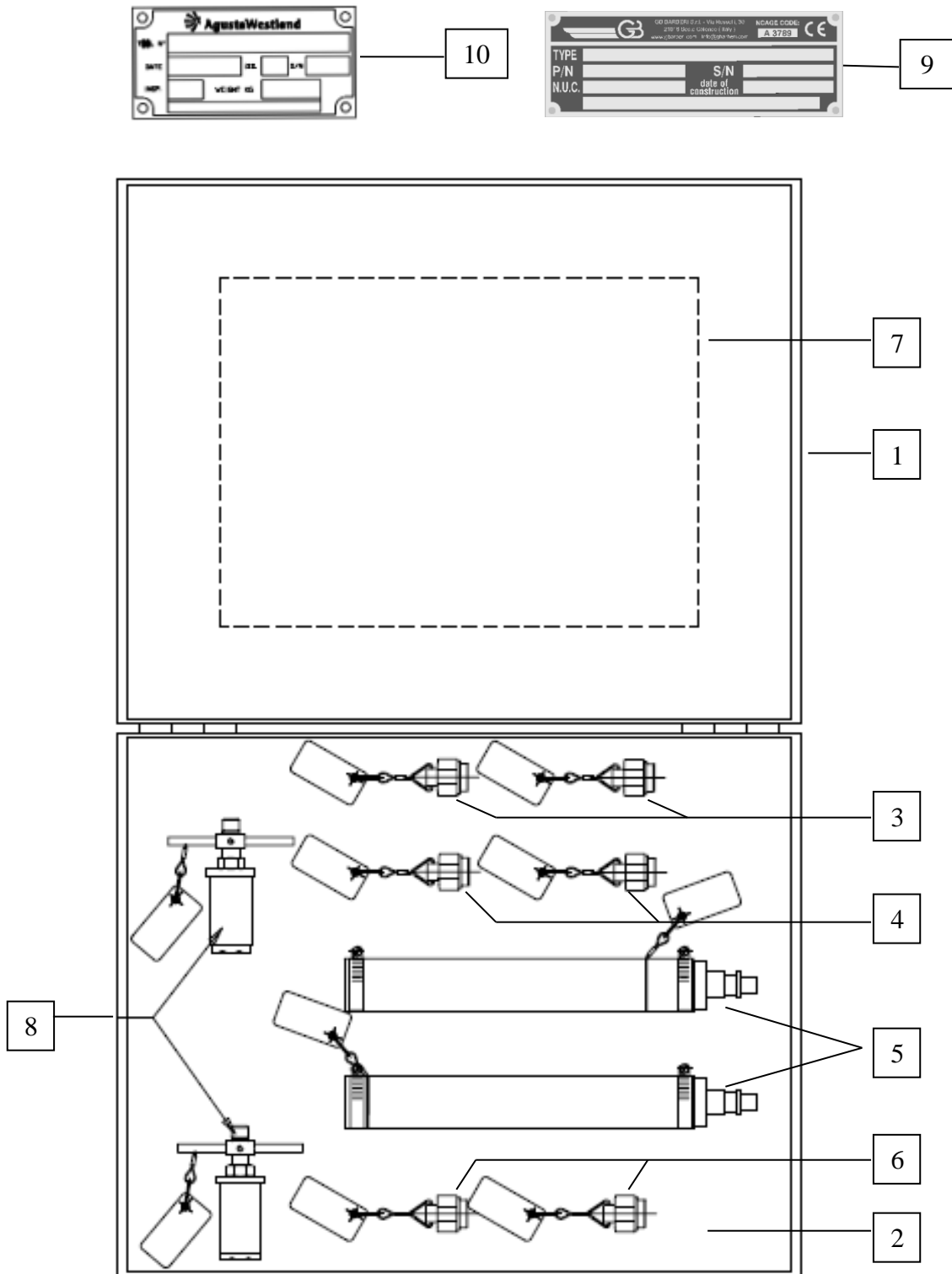


Fig. 4.3 ADAPTER SET FOR FUEL DRY TEST GB 967-800-080

TABLE 4.3 ADAPTER SET FOR FUEL DRY TEST GB 967-800-080
(ref. fig. 4.3)

| POS | REF. NUMBER | DESCRIPTION | Q.TY |
|-----|---------------|---|------|
| 1 | GB707-017-070 | ADPTER SET METAL CASE 315X250X70 | 1 |
| 2 | GB070-920-017 | FOAM MC145 PANEL ASSY | 1 |
| 3 | GB458-021-117 | CAP ASSY -105 REF.3G2800H00133A692B-105 | 2 |
| 4 | GB458-021-118 | CAP ASSY -106 REF.3G2800H00133A692B-106 | 2 |
| 5 | GB458-021-116 | TUBE ASSY -107 COMPOSED BY ITEM -104-103-108 REF.3G2800H00133A692B-200 | 2 |
| 6 | GB458-021-119 | CAP ASSY -109 RIF.3G2800H00133A692B-109 | 2 |
| 7 | GB065-611-295 | CASE PLATE, ADAPTER SET FOR FUEL TEST (GB907-800-080) | 1 |
| 8 | GB458-021-120 | CAP ASSY FOR TUBE Ø20 -200 REF.3G2800H00133A692B-200 | 2 |
| 9 | GB065-611-009 | "GB..." IDENTIFICATION PLATE | 1 |
| 10 | GB065-611-224 | IDENTIFICATION PLATE REF. ED450-08 | 1 |

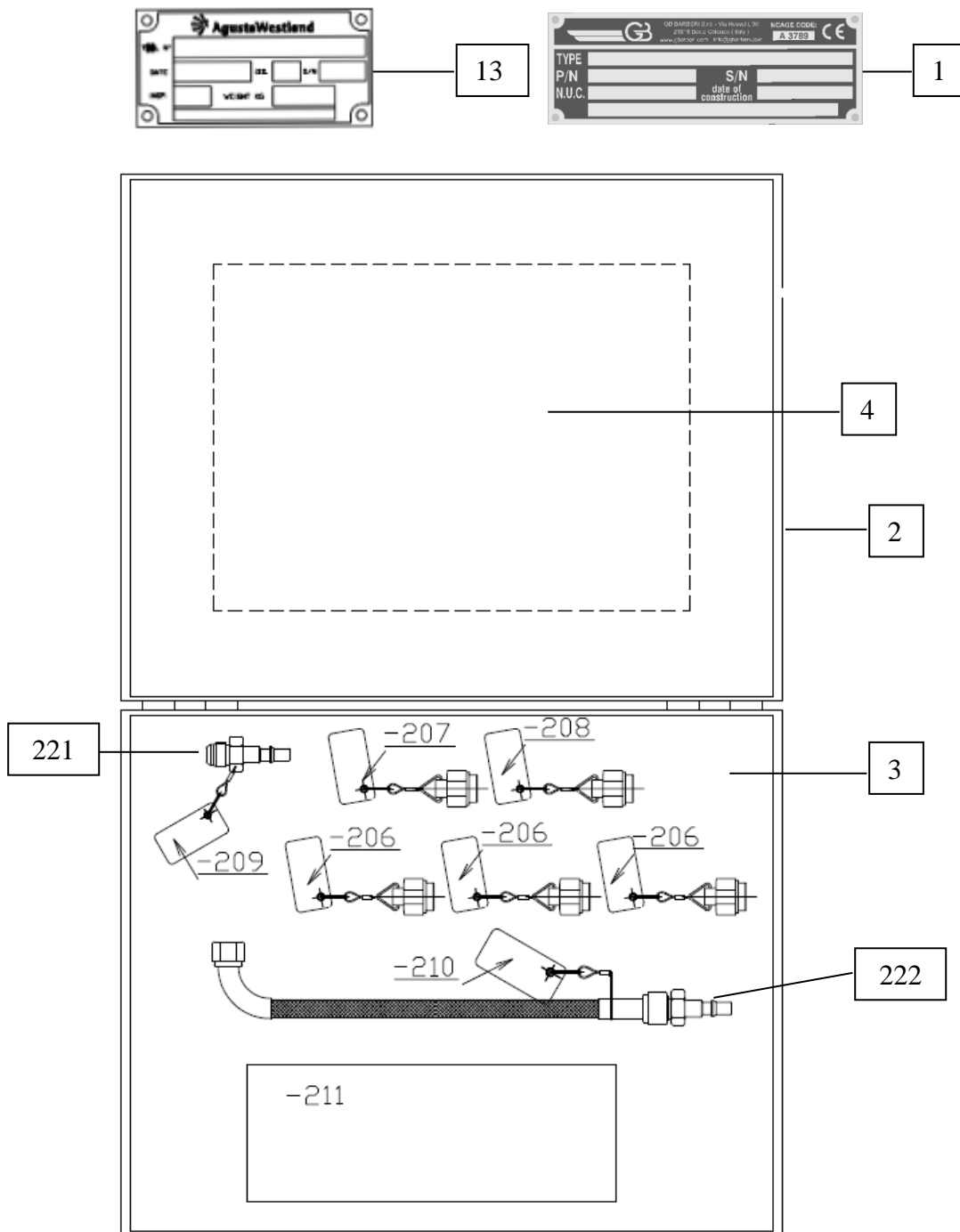


Fig. 4.4 ADAPTER SET FOR LEAKAGE FUEL TEST P/N GB 967-800-085

TABLE 4.4 ADAPTER SET FOR LEAKAGE FUEL TEST
GB967-800-085 (ref. fig. 4.4)

| POS | REF. NUMBER | DESCRIPTION | Q.TY |
|-----|---------------|--|------|
| 1 | GB065-611-009 | "GB..." IDENTIFICATION PLATE | 1 |
| 2 | GB707-029-000 | METAL CASE 135 x 400 x 320 mm | 1 |
| 3 | GB070-920-018 | FOAM MC145 PANEL ASSY | 1 |
| 4 | GB065-611-301 | CASE PLATE -104 LEAKAGE ADAPTER KIT FUEL TEST (P/N GB967-800-085) | 1 |
| 206 | GB458-021-121 | CAP ASSY -206 REF.3G2800H00133A692C-206 | 3 |
| 207 | GB458-021-122 | CAP ASSY -207 REF.3G2800H00133A692C-207 | 1 |
| 208 | GB458-021-123 | CAP ASSY -208 REF.3G2800H00133A692C-208 | 1 |
| 209 | GB262-603-027 | SPECIAL ADAPTER ASSY -209 REF.3G2800H00133A692C-209 | 1 |
| 210 | GB262-603-028 | FLEX HOSE ASSY -210 REF.3G2800H00133A692C-210 | 1 |
| 211 | GB064-435-300 | EXPANSION CAP, RUBBER, MAX PRESS 2,5 bar FROM 86 TO 153 mm | 1 |
| 221 | GB282-603-025 | SPECIAL ADAPTER -221 REF.3G2800H00133A692C-221 | 1 |
| 222 | GB262-603-026 | SPECIAL ADAPTER -222 REF.3G2800H00133A692C-222 | 1 |
| 13 | GB065-611-224 | IDENTIFICATION PLATE REF. ED450-08 | 1 |

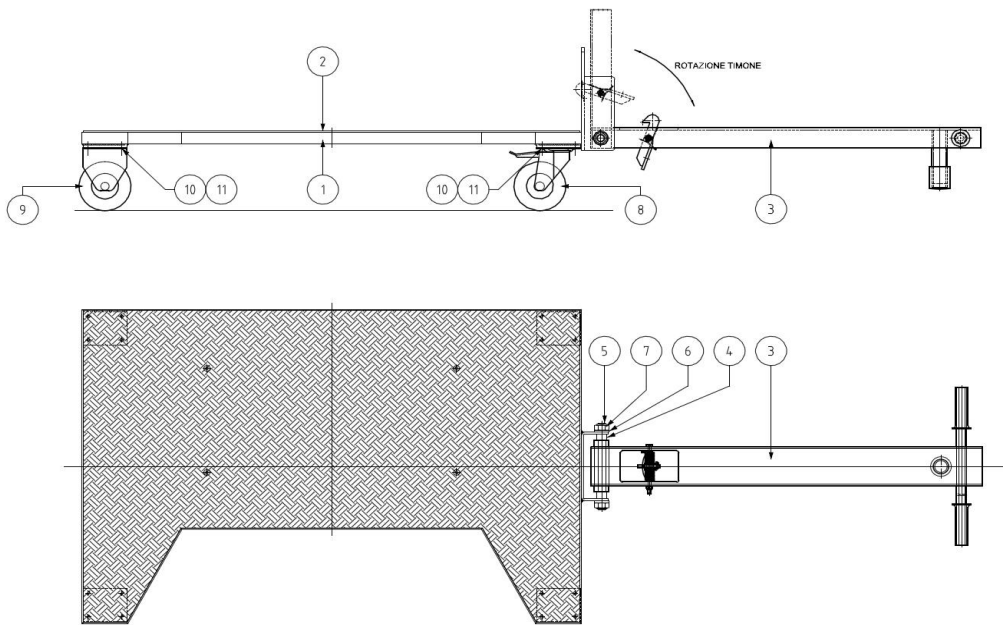


Fig. 4.5 TROLLEY GB967-800-079

TABLE 4.5 TROLLEY GB967-800-079 (ref. fig. 4.5)

| POS | REF. NUMBER | DESCRIPTION | Q.TY |
|------------|--------------------|--------------------|-------------|
| 1 | GB263-700-144 | LOWER STRUCTURE | 1 |
| 2 | GB263-700-146 | GROUND FORMED | 1 |
| 3 | GB941-804-705 | TOW BAR | 1 |
| 4 | GB262-602-588 | BUSHING | 2 |
| 5 | GB262-602-589 | PIN | 1 |
| 6 | GB021-019-181 | WASHER | 2 |
| 7 | GB020-392-118 | NUT | 2 |
| 8 | GB080-311-000 | WHEEL | 2 |
| 9 | GB082-319-000 | WHEEL | 2 |
| 10 | GB458-021-096 | WASHER | 16 |
| 11 | GB458-021-096 | SCREW | 16 |

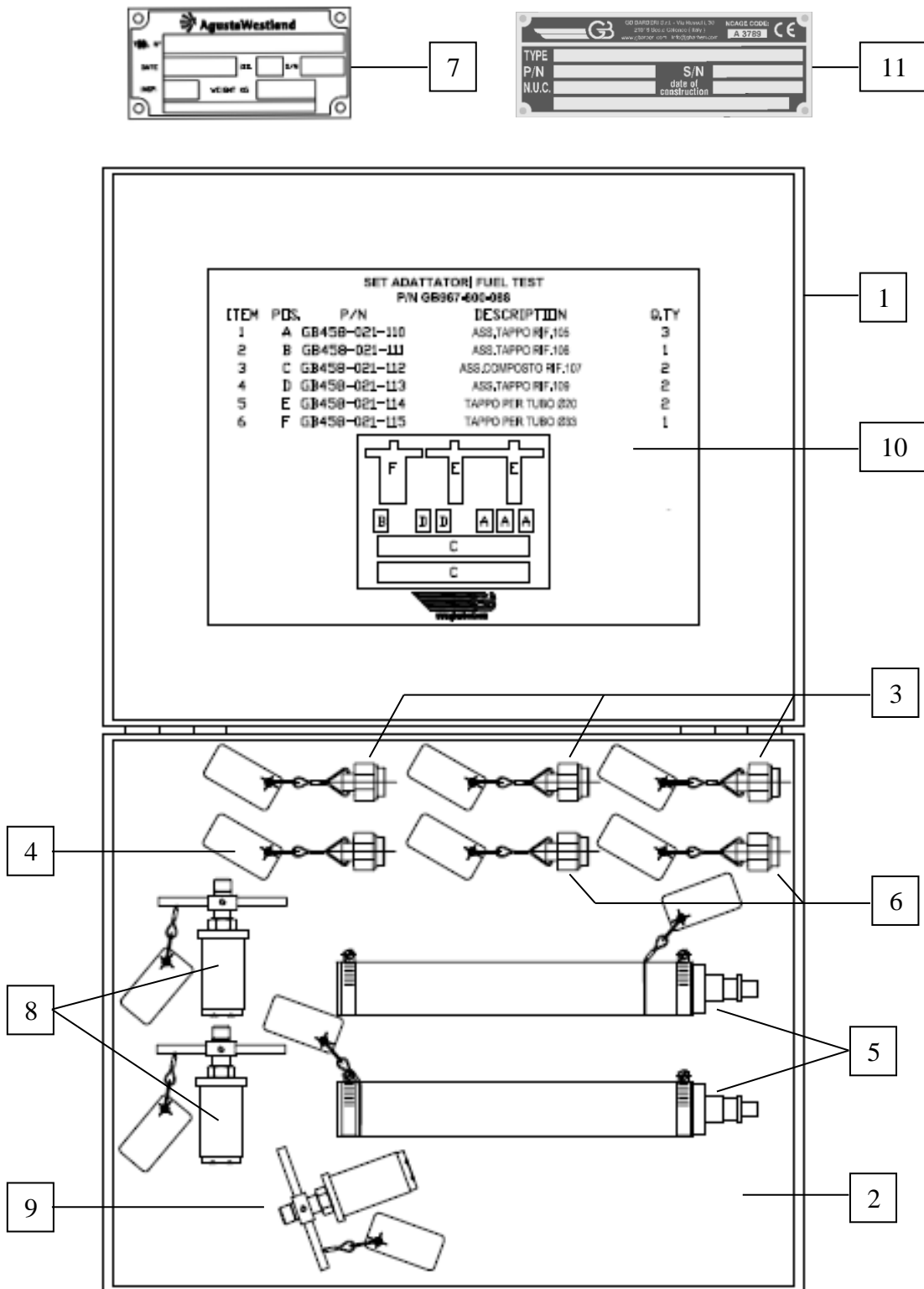


Fig. 4.6 ADAPTER SET FOR FUEL TEST P/N GB 967-800-088 (OPTIONAL)

TABLE 4.6 ADAPTER SET FOR FUEL TEST GB967-800-088
(ref. fig. 4.6)

| POS | REF. NUMBER | DESCRIPTION | Q.TY |
|-----|---------------|--|------|
| 1 | GB707-017-070 | METAL CASE 315X250X70 mm | 1 |
| 2 | GB070-920-012 | FOAM MC145 PANEL ASSY | 1 |
| 3 | GB458-021-110 | CAP ASSY -105 REF.8G2800H00131A692A-105 | 3 |
| 4 | GB458-021-111 | CAP ASSY -106 REF.8G2800H00131A692A-106 | 1 |
| 5 | GB458-021-112 | TUBE ASSY -107 COMPOSED BY ITEMS -104-103-108 REF.8G2800H00131A692A-107 | 2 |
| 6 | GB458-021-113 | CAP ASSY -109 REF.8G2800H00131A692A-109 | 2 |
| 7 | GB065-611-224 | IDENTIFICATION PLATE REF. ED450-08 | 1 |
| 8 | GB458-021-114 | CAP ASSY FOR TUBE Ø20 -200 REF.8G2800H00131A692A-200 | 2 |
| 9 | GB458-021-115 | CAP ASSY FOR TUBO Ø33 -300 REF.8G2800H00131A692A-300 | 1 |
| 10 | GB065-611-267 | CASE PLATE FOR ADPATER SET FUEL TEST (GB967-800-088) | 1 |
| 11 | GB065-611-009 | "GB..." IDENTIFICATION PLATE | 1 |

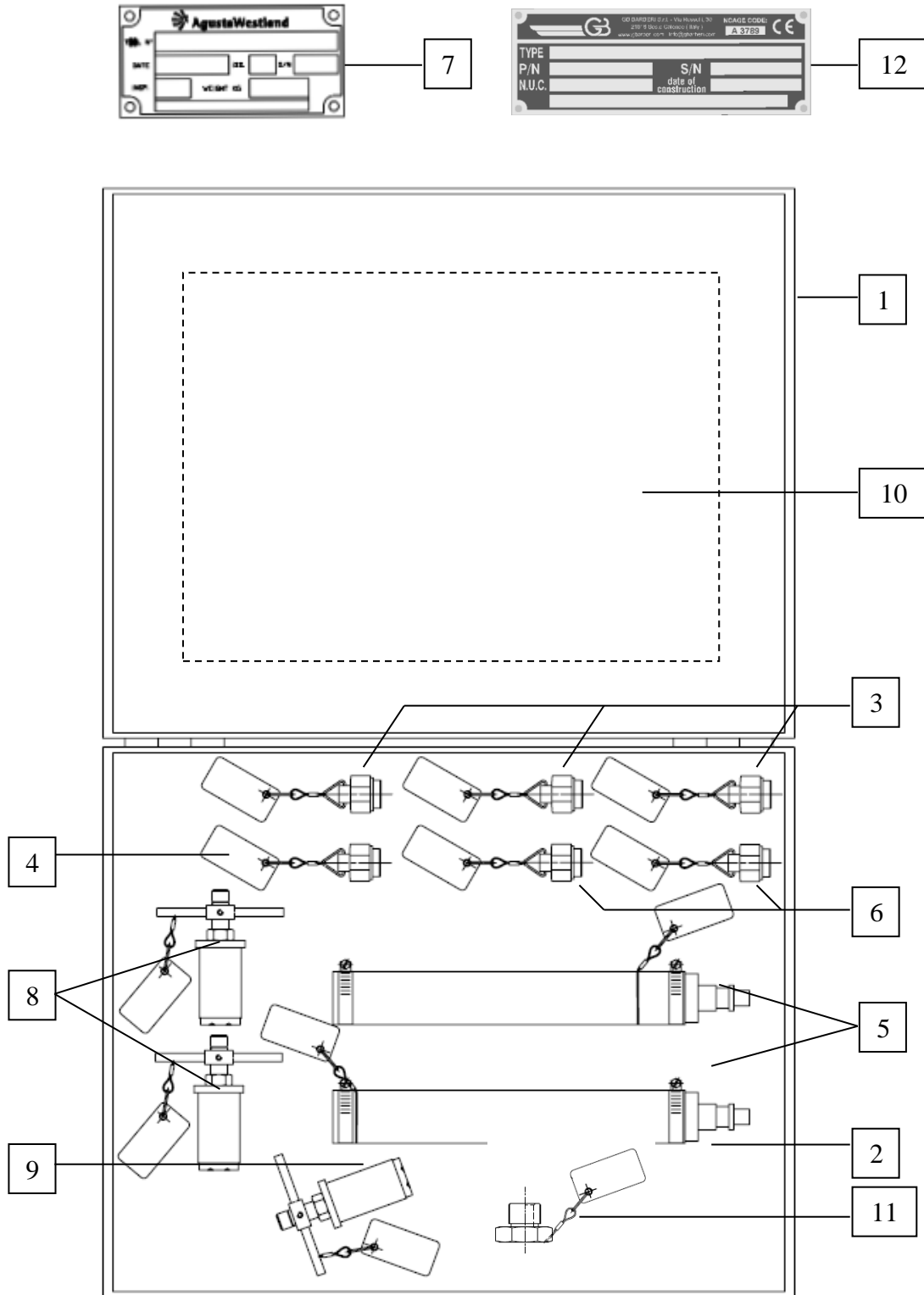


Fig. 4.7 ADAPTER SET FOR FUEL TEST P/N GB 967-800-089 (OPTIONAL)

TABLE 4.7 ADAPTER SET FOR FUEL TEST GB967-800-089
(ref. fig. 4.7)

| POS | REF. NUMBER | DESCRIPTION | Q.TY |
|-----|---------------|--|------|
| 1 | GB707-017-070 | METAL CASE 315X250X70 mm | 1 |
| 2 | GB070-920-037 | FOAM MC145 PANEL ASSY | 1 |
| 3 | GB458-021-110 | CAP ASSY -105 REF.8G2800H00131A692A-105 | 3 |
| 4 | GB458-021-111 | CAP ASSY -106 REF.8G2800H00131A692A-106 | 1 |
| 5 | GB458-021-112 | TUBE ASSY -107 COMPOSED BY ITEMS -104-103-108 REF.8G2800H00131A692A-107 | 2 |
| 6 | GB458-021-124 | CAP ASSY -109 REF.8G2800H00131A692A-109 | 2 |
| 7 | GB065-611-224 | IDENTIFICATION PLATE REF. ED450-08 | 1 |
| 8 | GB458-021-114 | CAP ASSY FOR TUBE Ø20 -200 REF.8G2800H00131A692A-200 | 2 |
| 9 | GB458-021-115 | CAP ASSY FOR TUBE Ø33 -300 REF.8G2800H00131A692A-300 | 1 |
| 10 | GB065-611-321 | CASE PALTE FOR ADAPTER SET FUEL TEST (GB907-800-089) | 1 |
| 11 | GB458-021-125 | CAP ASSY -119 REF.8G2800H00131A692A-119 | 1 |
| 12 | GB065-611-009 | "GB..." IDENTIFICATION PLATE | 1 |



FIG. 4.8: ASSIEME APTS PN GB967-090-110

TABELLA 4.8 ASSIEME APTS PN GB967-090-110 (ref. fig. 4.8)

| POS | N° DI RIFERIMENTO | DESCRIZIONE | Q.TA' |
|------------|--------------------------|--------------------------------|--------------|
| 1 | GB967-800-075 | ASSIEME ARMADIO | 1 |
| 2 | GB967-800-076 | ASSIEME ARMADIO PORTA ATTREZZI | 1 |
| 3 | GB967-800-074 | ASSIEME CARRELLO | 1 |
| 4 | GB601-045-000 | ASSIEME IMPIANTO PNEUMATICO | 1 |

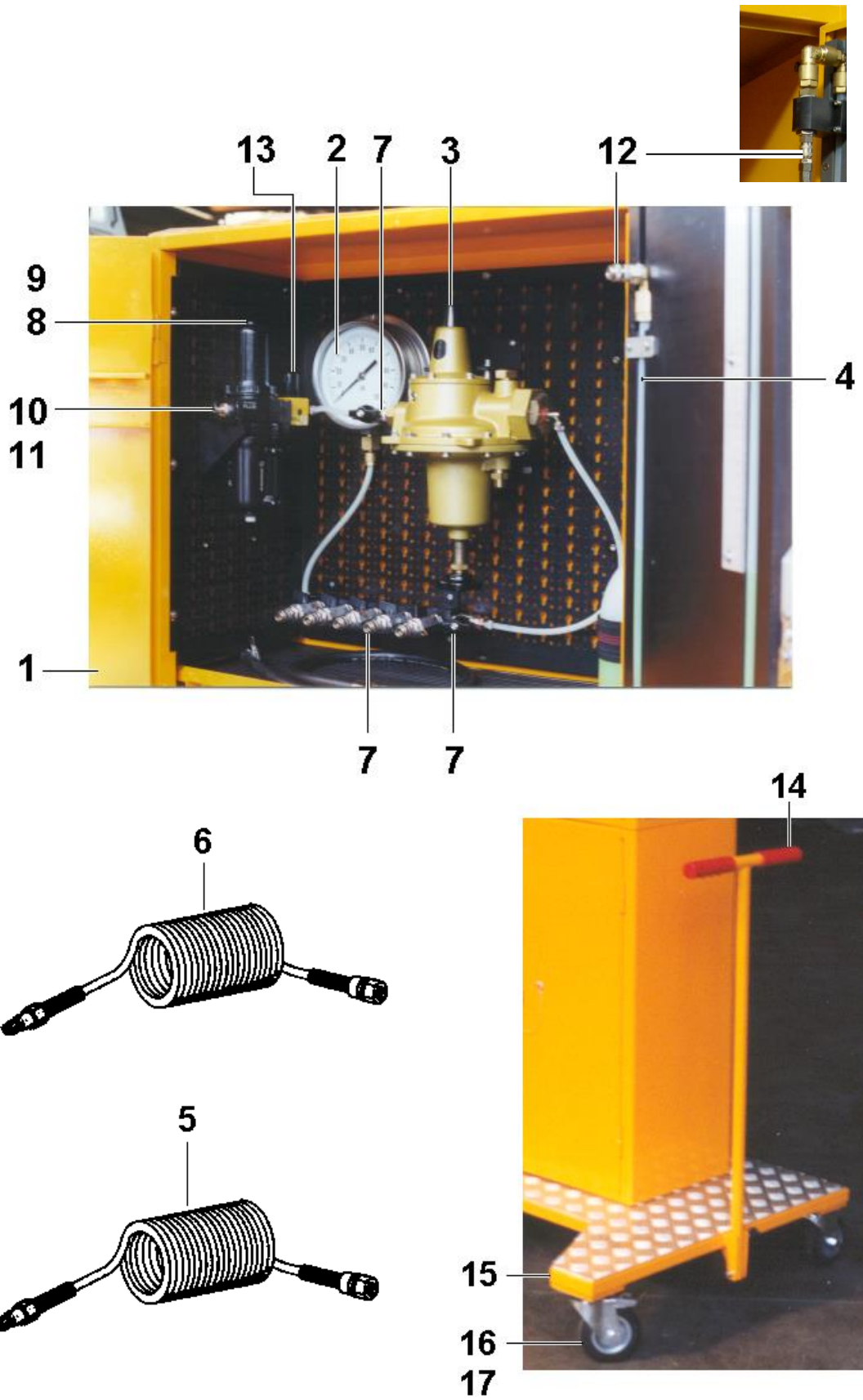


FIG. 4.9: APTS PN GB967-090-110 PNEUMATIC CIRCUIT

TABELLA 4.9 APTS PN GB967-090-110 PNEUMATIC CIRCUIT (ref. fig. 4.9)

| Pos. | N° di riferimento | Descrizione | Q.tà |
|------|-------------------|--------------------------------|------|
| 1 | GB 967 090 070 | ARMADIO | 1 |
| 2 | GB 802 164 200 | MANOMETRO | 1 |
| 3 | GB 645 000 100 | VALVOLA REGOLAT. DI PRESSIONE | 1 |
| 4 | GB 808 070 100 | ASSIEME COLONNA D'ACQUA | 1 |
| 5 | GB 529 067 000 | TUBO FLESSIBILE DI MANDATA | 2 |
| 6 | GB 529 067 100 | TUBO FLESSIBILE DI CONNESSIONE | 1 |
| 7 | GB 652 030 300 | RUBINETTO DI INTERCETTAZIONE | 7 |
| 8 | GB 671 075 000 | FILTRO COMPLETO | 1 |
| | GB 679 935 100 | GIOGO SINGOLO | 1 |
| 9 | GB 672 075 100 | ELEMENTO FILTRANTE | 1 |
| 10 | GB 484 100 003 | SEMINNESTO RAPIDO FEMM. | 1 |
| 11 | GB 483 100 000 | SEMINNESTO RAPIDO MASCHIO | 1 |
| 12 | GB 484 100 001 | SEMINNESTO RAPIDO FEMM. | 6 |
| 13 | GB 647 600 006 | VALVOLA RIDUTTRICE | 1 |
| 14 | GB 062 200 002 | MANOPOLA | 2 |
| 15 | GB 967 800 074 | CARRELLO COMPLETO | 1 |
| 16 | GB 082 319 000 | RUOTA GIREVOLE | 2 |
| 17 | GB 080 311 000 | RUOTA FISSA | 2 |
| 18 | GB 263 700 160 | RIGA MILLIMETRATA | 1 |

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