TOTAL AIRTOOL SERVICES (UK) Ltd

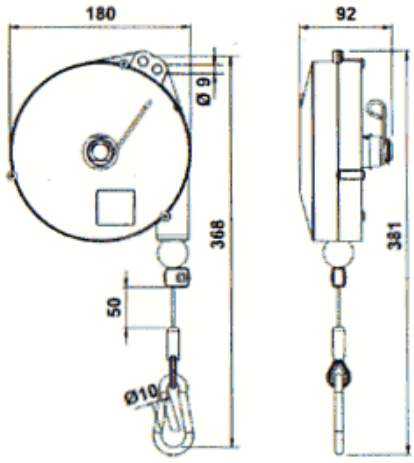
BALANCER OPERATING MANUAL

Reproduced from Tecna manual

ART. ITEM		kg.	kg.
9336		2 ÷ 4	3.14
9337		4 ÷ 6	3.30
9338		6 ÷ 8	3.36
9339		8 ÷ 10	3.43
9340		10 ÷ 14	3.58
9346		2 ÷ 4	3.14
9347		4 ÷ 6	3.32
9348		6 ÷ 8	3.38
9349		8 ÷ 10	3.48
9350		10 ÷ 14	3.62

< 70 d b (A)

T = +5°C... +60°C



Conservare queste istruzioni per tutta la vita del bilanciatore
Save these instructions for all the balancer life
Conserver ces instructions pendant toute la vie de l'équilibreur
Conservar estas instrucciones durante toda la vida del equilibrador
Diese Bedienungsanleitung muss für die Lebensdauer des Federzuges aufbewahrt werden
Bewaar deze instructies gedurende de gehele levensduur van de balancer
Oppbevar denne bruksanvisning for hele bruksperioden
Spara denna bruksanvisning så länge balansblocket är i bruk

Collegamenti di sicurezza N. 1 21215 N. 1 33309
Safety connections N. 1 21215 N. 1 33309
Liaisons de sûreté N. 1 21215 N. 1 33309
Conexiones de seguridad N. 1 21215 N. 1 33309
Sicherheitsaufhängungen N. 1 21215 N. 1 33309
Veiligheidsverbindingen N. 1 21215 N. 1 33309
Sikkerhetsoppheng N. 1 21215 N. 1 33309
Säkerhetsupphängningar N. 1 21215 N. 1 33309

GB ***Translation of the Original Instructions***

⚠ ***Install the balancer before using it. This operation is to be carried out by skilled personnel who must comply with the directions outlined in this manual: a wrong installation could cause injury/damage to people/property.***

This manual contains important information that the user must adhere to in order to use the balancer safely. Be sure to have clearly understood all the instructions before using the balancer. Failure to do so could cause injury.

The balancer was built in conformity with European Community Directives that were pertinent and applicable when the balancer was put on the market and that entail the CE marking of the product.

Intended conditions of use

The balancers are designed to balance the weight of tools and utensils in general and are to be used by one operator at a time. The balancer may be used in an assembly line, in single workplaces, in professional or private environments, as a hobby, etc.

⚠ ***Always operate, inspect and maintain this balancer in perfect working order in accordance with all regulations pertinent to balancers, tools and workplaces.***

Use contraindications

Do not use the balancer in environments with potentially explosive atmospheres.

Do not permit children or people under age to use the balancer.

Do not work, transit or linger underneath the balancer.

When using balancers, always fully and duly comply with the standards and laws in force in the country in which they are used.

TECNA S.p.A. will not be held liable for any damage or problems caused by customers using these balancers for any other application.

Choosing the balancer

Assess the total load to be balanced: tool, accessories and sections of hoses or cables to be lifted by the balancer. The overall load to be balanced must fall within the balancer's minimum and maximum load-bearing capacity.

Starting up the balancer

Assess the range of the work area and, if need be, hang the balancer on a carriage to be able to use it properly in an area wide enough to carry out the required activities.

Use hole A for the main suspension and hole S for the safety suspension.

⚠ **WARNING: refer to figure 1a for loads up to 4 kilos otherwise refer to figure 1b for loads exceeding 4 kilos.**

If screw fixing devices are used to install the balancer, use self-locking nuts, split-pins or other safety systems.

⚠ **Always connect the safety suspension S, using exclusively the supplied standard fittings (Fig.1a/b), to a suitably sized support.** *The safety support MUST NOT BE the same one used for the main suspension A (Fig.1a/b). If the main suspension breaks, the max falling distance must not be more than 100 mm. Tighten the nuts of the clamp 21215 (Fig. 1) at a torque of 2 Nm.*

To avoid anomalous wear, the load must be applied vertically and in any case the cable must be free to line up with the direction of the load.

Using the balancer

Grip the tool hanging from the balancer and carry out the required operations. Then accompany the tool until it balances, on the vertical line of the balancer, and release it.

The load to be balanced must be hung on hook 24 Fig.4. Ensure that the hook is properly closed after having hung the load.

The cable must never unwind all the way: the work stroke must end at least 100 mm before the stroke's lower limit.

If need be, move and lock the clamp 20 Fig.4 to stop the upward stroke.

When using the balancer, always don individual protective gear and closely adhere to the prevailing accident prevention regulations.

It is strictly prohibited to:

- Abandon the load if it is not in a vertical position;
- Swing/throw the hanging load to another operator;
- Move the load by pulling the balancer's cable;
- Hang loads that are not within the upper and lower ranges of the admissible load-bearing capacity;
- Hang more than one tool on the balancer.

⚠ ***The sole risk linked to the use of the balancer consists in any uncontrolled rewinding of the cable. This very dangerous event will be avoided by adhering to the following instructions:***

- if you have any doubts concerning the working efficiency of the balancer, **BEFORE** performing any kind of inspection be sure to hold up the hanging tool to prevent it from falling and **UNLOAD THE SPRING COMPLETELY**;

⚠ ***Should one wish to fully discharge the spring, stop the discharging operation as soon as the spring is effectively and completely discharged (proceeding beyond this position would damage the spring which would require to be replaced).***

- if for any reason whatsoever the balancer does not rewind the cable, **DO NOT** do anything on your own initiative but contact the customer service at once;
- never release the load if the cable has not been fully wound in the drum;
- should you find the balancer with the cable unwound and no load applied to it, **DO NOT** do anything on your own initiative but contact customer service at once.

Adjusting the balancer

To enable the balancer to balance heavier loads, use wrench D to turn the knob 6 counterclockwise, identified by symbol "+" as shown in the figure (Fig.2). For lighter loads, press the end of the spring 9 (Fig.3) and turn it clockwise, identified by symbol "-" as shown in the figure (Fig.3).

⚠ **WARNING: DO NOT USE THE WRENCH ON KNOB 6 TO DECREASE THE LOAD!** *(The latching system could break if you force the knob using the wrench in the load-decreasing direction).*

After having adjusted the load, check that the cable slides freely for its entire length: the movement must not be restricted when the spring has wound all the way. Check the stroke often and at different speeds.

ONLY FOR models 9346-50

Balancers 9346-50 are fitted with a mechanism that locks the rewinding of the cable. This permits working without the cable traction, for instance inside a car (Fig. 7).

The locking is achieved through the slow upward movement of the tool.

In order to release the rotation of the drum, pull the tool slightly downwards but make it go back up quickly.

In order to prevent undesired locking, it should go up at a suitable speed.

NOTE: should the balancer's capacity of supporting a hanging load decrease, this could mean that the spring of the drum is about to break. DO NOT MODIFY BALANCER ADJUSTMENT TO MAKE IT

HOLD UP THE LOAD IN ALL CASES BUT CONTACT SKILLED PERSONNEL IN CHARGE OF MAINTENANCE AT ONCE.

Safety devices

The balancer is fitted with a safety device that trips if the drum's spring breaks and stops operations to prevent the hanging load from falling.

If you are unable to move the hanging tool up or down using moderate force, **DO NOT continue but contact our technical service at once.**

NOTE: the balancer locks even if the drum spring is completely discharged. To restore working efficiency, attempt to charge the spring as outlined in paragraph "Adjusting the balancer". If the balancer does not release, DO NOT do anything but contact the technical service at once.

INSPECTIONS AND MAINTENANCE

Maintenance may be carried out only by skilled and authorized personnel.

- The user must visually inspect the balancer on a regular basis (such as, for instance, at each work shift) especially to check the state of suspensions A and S (Fig. 1), the fixing screws and the self-locking systems (if used), and the condition of the hooks and cable.

⚠ ***Should the cable have the defects shown in Fig.8, replace it immediately.***

Do not make any modification to the cable unit and, specifically, **DO NOT SHORTEN the cable**: if need, please get in touch with TECNA S.p.a.

- check that the cable's movement is smooth and that it does not make any strange noises;
- do not lubricate the balancer with flammable or volatile fluids;
- do not remove any labels. Replace any damaged labels;
- **the balancer must be inspected at least once a year by skilled, authorized personnel.**

⚠ *Never disassemble the balancer. Maintenance is to be carried out only by skilled, authorized personnel.*

The static and dynamic tests (Machinery Directive 2006/42/EC, Annex I, section 4.1.3) have been performed by the manufacturer.

The balancer must be disposed of complying with prevailing rules and regulations at the end of its work life.

Warranty

The use of non original TECNA S.p.a. spare parts will negatively affect safety and performance and will, in any case, void the warranty.

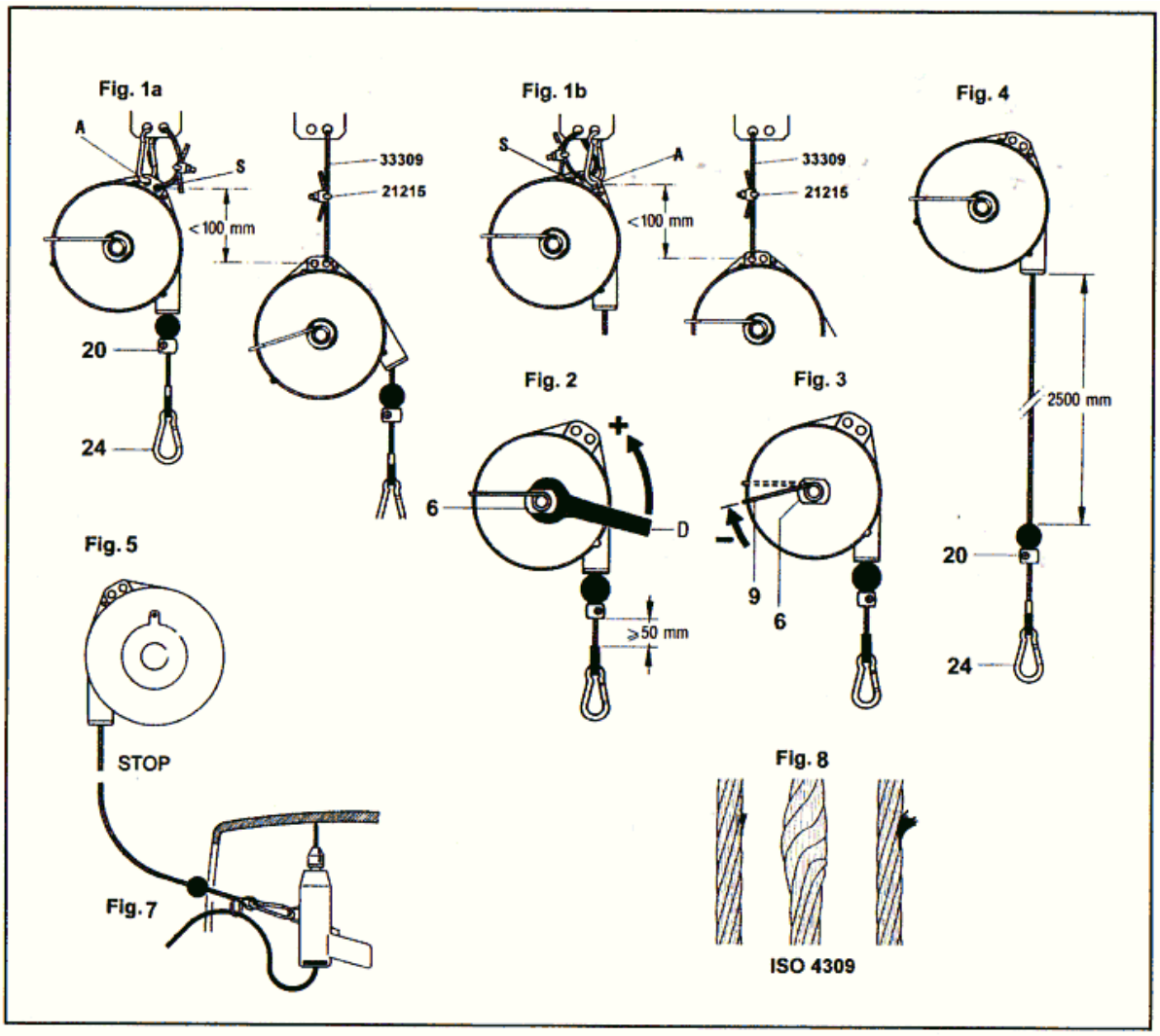


Fig. 1a
A
S
< 100 mm
33309
21215
20
24
Fig. 1b
S
A
< 100 mm
33309
21215
Fig. 4
2500 mm
20
24
Fig. 2
6
D
≥ 50 mm
Fig. 3
9
6
Fig. 5
STOP
Fig. 7
Fig. 8
ISO 4309

GB ***Translation of the Original Instructions***

BALANCER MAINTENANCE

This part of the manual is intended for maintenance personnel ONLY

⚠ ***CERTAIN OPERATIONS OUTLINED IN THIS SECTION ARE VERY DANGEROUS AND COULD INJURE PEOPLE IF PERFORMED BY UNSKILLED PERSONNEL.***

REFER TO THE OPERATING MANUAL TO INSTALL, ADJUST AND USE THE BALANCER.

Maintenance

The balancer's dimensioning is such that it is maintenance-free for its entire work life. But if it is used under particularly harsh conditions and requires any interventions, ***ensure that the springdrum group (13) is unloaded before disassembling the balancer.***

⚠ ***Should one wish to fully discharge the spring, stop the discharging operation as soon as the spring is effectively and completely discharged (proceeding beyond this position would damage the spring which would require to be replaced).***

The spring is the balancer's only dangerous component. It is housed inside the drum (13) that is lubricated for life. The spring-drum spare part (13) is supplied complete: ***do not remove the spring for any reason whatsoever***.

⚠ ***Do not disassemble the spring group as this is a dangerous operation.***

Replacing the cable.

Discharge the drum spring;

Remove the stop ring 11 and the washer 12;

Hold bush 6 in place, using a 30-mm wrench, widen the spring 9 and lift the spring and the bush and then remove the plate 4;

Remove screws ABC and loosen screw D by a few millimeters, raise flange E and replace the cable (15). Refit and tighten screws ABC and D.

Reassembly.

Repeat the foregoing operations in reverse order.

⚠ ***WARNING: before you position the drum into the cover, check that the slot of cam 5 has been inserted into the matching pawl of lever 8 and that spring 7 is in place. As concerns models 9346-50 pay attention to the position of the centrifugal masses X.***

WARNING: in order to insert the drum into the cover, the cable must pass through the specific notch G in the flange F.

WARNING: after having inserted the bush 6 into the plate 4, insert it into the drum 13 by coupling the spring and then place everything inside the cover. Hold bush 6 in place using a 30-mm wrench, widen the spring 9 and then move down the bush 6 until it has entered the drum completely.

WARNING: if the greater diameter of bush 6 does not lower until it touches plate 4, this means that bush 6 has not entered the drum's support: stretch open spring 9 and oscillate the bush 6 until it is completely inserted.

Finish the assembly by inserting washer 12 and ring 11.

Drum spring breakage

If the balancer is locked, check that the drum's spring is not completely discharged (this condition would trigger a locking as if the spring were broken); if you are unable to charge the balancer complying with the procedure outlined in paragraph "Adjusting the balancer", this means that the

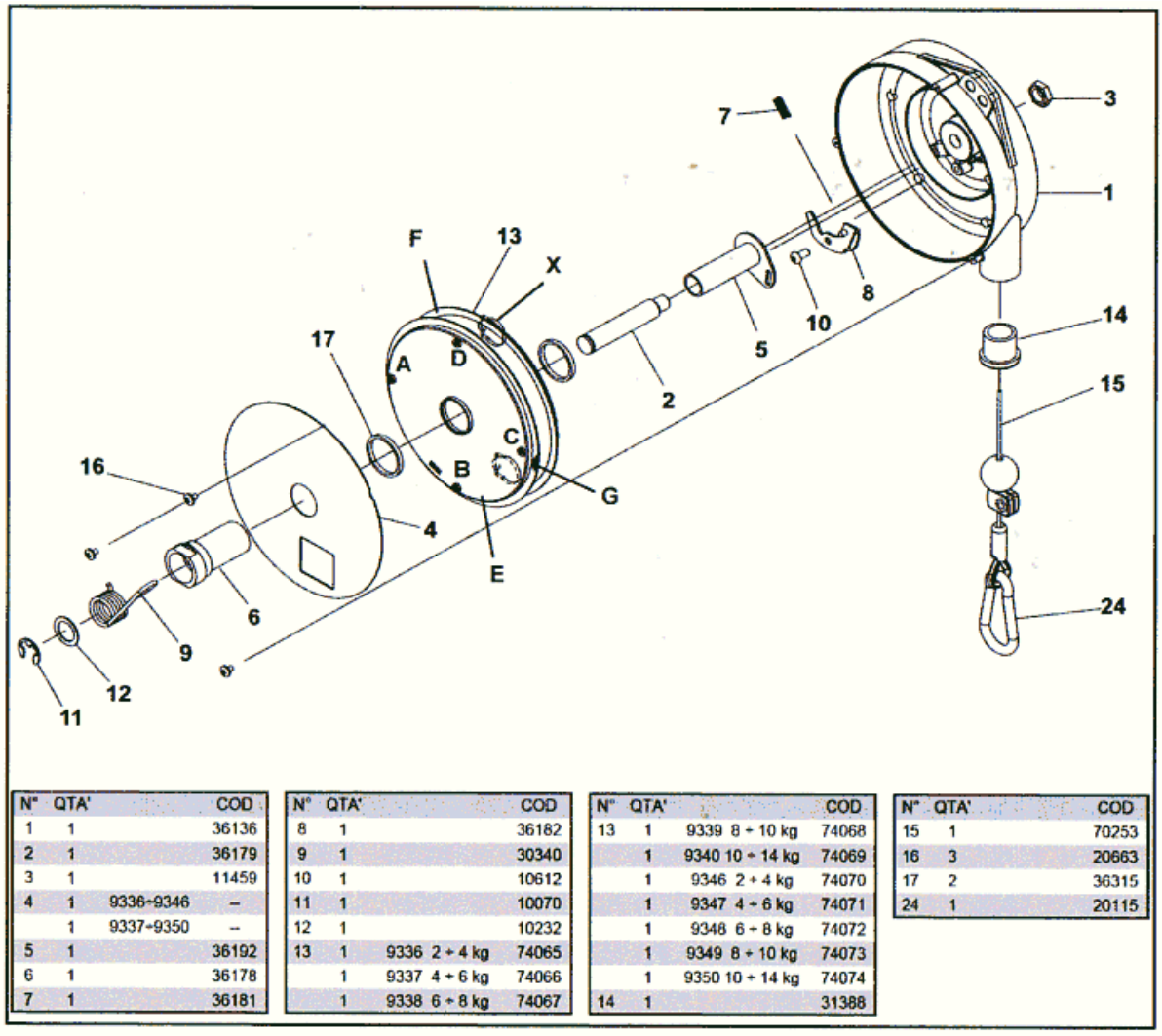
drum's spring is probably broken. ⚠ ***WARNING: before carrying out any type of check, make sure the spring is discharged in actual fact.***

WARNING - DANGER: never open the drum and/or attempt to replace the spring for any reason whatsoever. This operation is extremely dangerous and could cause very serious injury.

Carry out the procedure outlined in paragraph "Replacing the cable" to disassemble the balancer and **replace the entire drum** (the spring is NOT supplied as a separate spare part).

⚠ ***WARNING - DANGER: dispose of the drum containing the broken spring as specified by prevailing laws and regulations. DO NOT abandon it or dispose of it together with other types of waste and/or scrap because if it opens, even by accident, it is VERY DANGEROUS and could cause serious damage to anyone.***

Use original TECNA S.p.a. spare parts only. When requesting spare parts, the Customer should kindly contact the supplier of the balancer, or the manufacturer directly, specifying the machine's identification data printed on the plate.



N°	QTA'		COD
1	1		36136
2	1		36179
3	1		11459
4	1	9336÷9346	–
	1	9337÷9350	–
5	1		36192
6	1		36178
7	1		36181

N°	QTA'		COD
8	1		36182
9	1		30340
10	1		10612
11	1		10070
12	1		10232
13	1	9336 2 ÷ 4 kg	74065
	1	9337 4 ÷ 6 kg	74066
	1	9338 6 ÷ 8 kg	74067

N°	QTA'		COD
13	1	9339 8 ÷ 10 kg	74068
	1	9340 10 ÷ 14 kg	74069
	1	9346 2 ÷ 4 kg	74070
	1	9347 4 ÷ 6 kg	74071
	1	9348 6 ÷ 8 kg	74072
	1	9349 8 ÷ 10 kg	74073
	1	9350 10 ÷ 14 kg	74074
14	1		31388

N°	QTA'	COD
15	1	70253
16	3	20663
17	2	36315
24	1	20115

DICHIARAZIONE DI CONFORMITÀ · DECLARATION OF CONFORMITY
CERTIFICAT DE CONFORMITE · CERTIFICADO DE CONFORMIDAD
KONFORMITÄTSERKLARUNG · CONFORMITETS VERKLARING

Nome e indirizzo del costruttore
Name and address of manufacturer
Nom et adresse du constructeur
Nombre y direccion del constructor
PIETRO TERME (BO) Name und Adresse des Herstellers
ITALY
Naam en adres van de fabrikant

TECNA S.P.A.
VIA MEUCCI, 27
40024 CASTEL S.

Dichiariamo sotto la nostra unica responsabilità che il prodotto
We declare under our sole responsibility for manufacture of the product
Nous declarons sous notre seule responsabilité que le produit
Certificamos bajo nuestra sola responsabilidad que el producto
Wir erklären unter einziger Verantwortung, dass das Produkt
Wij verklaren onder onze uitsluitende aansprakelijkheid, dat het produkt

BILANCIATORE
BALANCER
EQUILIBREUR
EQUILIBRADOR
FEDERZÜG
BALANCER

Modello - Model - Type - Modelos - Typen - Modellen

9336 - 9337 - 9338 - 9339 - 9340

9346 - 9347 - 9348 - 9349 - 9350

Numero di serie - Serial number - Numéro de série da/from/de/de/von/van
0038999 Número de fabricación - Serie-Nummer - Serienummer a/to/a/a/bis/tot
0099999

Oggetto della presente dichiarazione si riferisce al seguente standard:
The subject-matter of this declaration refers to the following Standard:
Faisant l'objet de cette déclaration se réfère au standard suivant:
El objeto de la presente declaración se refiere al siguiente estándar:
Der Gegenstand dieser Erklärung nimmt Bezug auf folgenden Standard:
Het voorwerp van deze verklaring betrekt zich op navolgende norm:

DIN 15112

Ai sensi delle direttive CEE:
Following the provisions of EEC Directives:
Conforme aux prescriptions des Directives CEE:
2006/42/EC Conforme a las prescripciones y directivas de la CEE:

Gemäss EG-Richtlinien
Volgens de E.E.G.-Richtlijnen

Nome e indirizzo della persona autorizzata a costituire il facicolo tecnico:
Name and address of the person authorized to draw up the technical file:
TECNA S.p.A.
Nom et adresse de la personne autorisée à constituer le dossier technique:
Nombre y dirección de la persona autorizada a constituir el expediente técnico:
TERME (BO)
Name und Adresse der zur Erstellung des Technikheftes autorisierten Person:
Naam en adres van de geautoriseerde persoon voor het samenstellen van het technische dossier:

VIA MEUCCI, 27
40024 CASTEL S. PIETRO
ITALY

Nome e firma della persona autorizzata alla redazione della dichiarazione di conformità:
Name and signature of the person authorized to write the declaration of conformity:
Nom et signature de la personne autorisée à rédiger la déclaration de conformité:
Nombre y firma de la persona autorizada a redactar la declaración de conformidad:
Name und Unterschrift der zur Abfassung der Konformitätserklärung autorisierten Person:
Ezio Amadori
Naam en handtekening van de geautoriseerde persoon voor het opstellen van de conformiteitsverklaring:

Presidente del C.d.A. · Chairman of the BOD
Président du Conseil d'Administration
Vorsitzender des Verwaltungsrates · Presidente del C.d.A.

Caste San Pietro Terme 05/03/2014