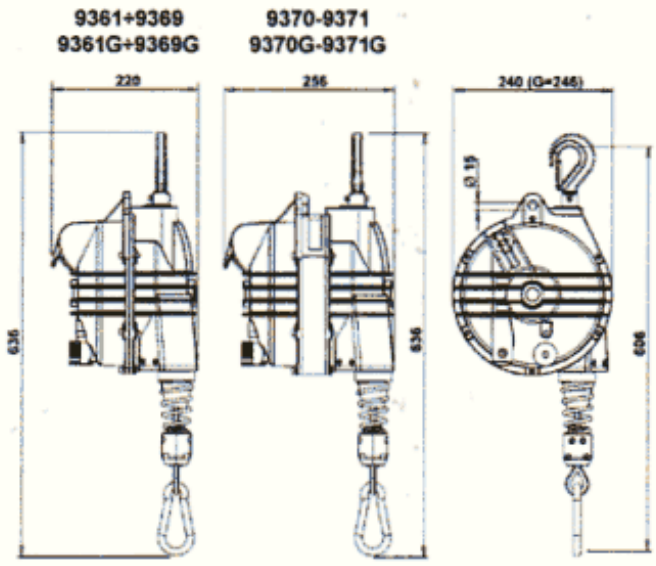
TOTAL AIRTOOL SERVICES (UK) Ltd
BALANCER OPERATING MANUAL

Reproduced from Tecna manual

ART. ITEM	kg.	kg.	kg.
9361-9361G	10 ÷ 15	8.73	9.88
9362-9362G	15 ÷ 20	9.01	10.17
9363-9363G	20 ÷ 25	9.29	10.45
9364-9364G	25 ÷ 30	10.14	11.29
9365-9365G	30 ÷ 35	10.14	11.29
9366-9366G	35 ÷ 45	11.03	12.18
9367-9367G	45 ÷ 55	11.03	12.18
9368-9368G	55 ÷ 65	11.87	13.02
9369-9369G	65 ÷ 75	12.67	13.82
9370-9370G	75 ÷ 90	15.65	16.80
9371-9371G	90 ÷ 105	16.58	17.74



< 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.220331N.121183
Safety connections	N.220331N.121183
Liaisons de sûreté	N.220331N.121183
Conexiones de seguridad	N.220331N.121183
Sicherheitsaufhängungen	N.220331N.121183
Veiligheidsverbindingen	N.220331N.121183
Sikkerhetsoppheng	N.220331N.121183
Säkerhetsupphängningar	N.220331N.121183

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.

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.1), to a suitably sized support**. *The safety support MUST NOT BE the same one used for the main suspension 17 (Fig.1). If the main suspension breaks, the max falling distance must not be more than 100 mm. Tighten the nuts of the clamps 20331 (Fig.1) at a torque of* ***4 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 snap-hook 31 (Fig.5). Ensure that the snap-hook is properly closed after having hung the load. The cable must never be unwound all the way: its work travel must end at least 100 mm before it reaches the lower limit (balancers are fitted with an automatic limit stop system).

If need be, move and lock the clamp M (Fig.5) to stop the upward stroke.

⚠ ***Do not unhook the load if the clamp M (Fig. 5) does not lean onto the rope's swaging (POSITION SHOWN IN FIGURE 5).***

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 DISCHARGE 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
- if the balancer's cable is 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 the specific key to turn screw 45 (Fig. 5) in the direction indicated by symbol "+". For lighter loads, turn screw 45 (Fig. 5) in the direction indicated by symbol "-".

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.

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

Drum spring breakage

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

If the hanging tool cannot be lifted or lowered through ordinary strain, **DO NOT INSIST but contact customer service**.

NOTE: the balancer stops even if the drum spring is fully discharged: in this condition the head of the charge screw 45 (Fig.5) protrudes approximately 4 mm outside the cap. To restore operating conditions, use the lever 4 (Fig.6) and try to charge the spring as outlined in paragraph "Balancer adjustment" (release lever 4 when the head of the charge screw has re-entered the cap). If the balancer does not release, **DO NOT do anything and contact customer service**. ***Centrifugal speed limiter***

The balancer is fitted with a centrifugal safety system that locks the drum if the speed exceeds the danger limit (accidental unhooking of the load, cable breakage, etc.).

If the centrifugal safety system trips, discharge the drum spring IMMEDIATELY and completely, and have the balancer inspected by an authorized service center.

Manual lock

The balancer is fitted with a manual-locking system (Fig.4): turn the knob 1 to position H to stop drum rotation. Turn the knob 1 to position G for routine work conditions.

NOTE: for safety reasons, the shape of the shutter that stops the drum does not allow the shutter to be removed unless it is perfectly coaxial with the matching hole in the drum: to release the drum, move the load slightly at the top and at the bottom until you find the correct position in which to release it.

OPTION 'B': control from below (Fig.2)

Lower the side of the handle with the **RED** tape to lock the drum; lower the side of the handle with the **GREEN** tape to release it.

⚠***WARNING: do not leave the balancer with the drum locked and no hanging loads.***
WARNING: if the balancer's cable is not fully wound, and no load is applied to it, DO NOT do anything but contact the customer service at once.

OPTION "RI", insulated rotary suspension (Fig.3)

Permits to insulate the load hung on the balancer and/or turn the hanging tool freely without twisting the cable.

⚠***WARNING: always comply with the safety regulations when using electrical appliances.***

Installation: insert the snap-hook (31) into the pin E of the rotary suspension. Insert the cable's thimble (14) into the pin F; insert the split-pin (D) and deform it.

INSPECTIONS AND MAINTENANCE

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

- Visually inspect the balancer on a regular basis (for instance once at each work shift). Specifically, check the state of the suspensions (17) and S (Fig.1), the fixing screws & self-locking systems (if used), and the condition of the hooks and cable.

⚠***If the cable has the defects shown in (Fig.7), 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 spare parts will negatively affect safety and performance and will, in any case, void the warranty

Fig. 1

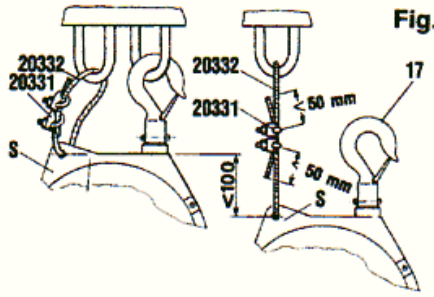
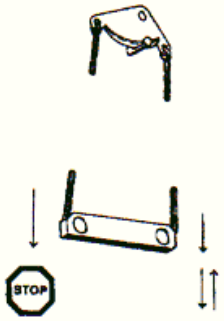
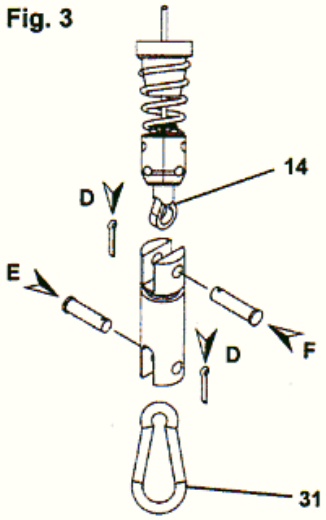


Fig. 2



OPZIONE B

Fig. 3



OPZIONE RI

Fig. 4

Fig. 5

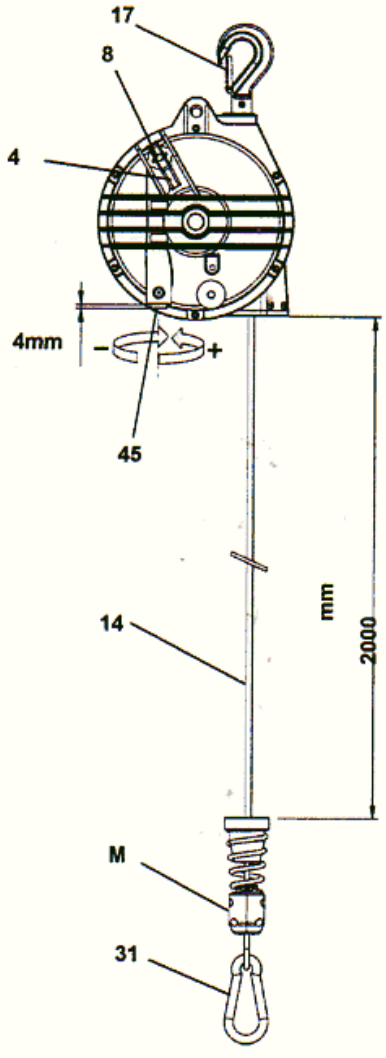
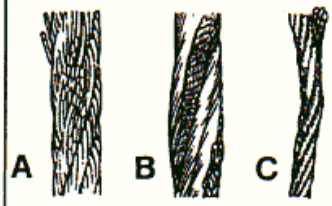


Fig. 6

Fig. 7



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 size is such that it is maintenance-free for its entire work life. However, if it is used under particularly harsh conditions and requires any interventions, **ensure that the spring-drum group (13) is discharged 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.***

Removing and inspecting the balancer

- Remove the screws (40); raise the cap (5); unwind the cable completely (14); remove the shaft (11) using a plastic hammer if need be;
- Inspect the spring-drum group (13): if the internal spring is broken or the cable guide groove is damaged, replace the whole group. The spring-drum group (13) is supplied assembled, lubricated and complete with bearings. Never open it for any reason whatsoever;
- Check the cable (14): replace it if is has the defects shown in (Fig.7);
- Inspect the disc's centrifugal weights (9) (they should be free to move) and the springs (37) that must be in perfect condition and must ensure that the centrifugal weights return. Check that the cap (5) is not damaged where the centrifugal weights act;
- The centrifugal safety disc is completely assembled (9) when supplied. The only available spare parts are the springs (37);
- Check the working efficiency of all the shutter kinematics (8 and 38), check the screw (45) and the pin (43) (they should slide axially and turn) and the working efficiency of the springs (6-42).

Balancer assembly:

- Check that the stop (50) is free to move;
- Tighten the screws (49) on the retaining plate (51) of the rope (14) with a torque of 2÷3 Nm
- Wind the cable in the drum's helical slots (13), carefully insert it in the stop (50) and assemble;
- Tighten the screws (39) of the safety disc (9) with a torque of 5 Nm;
- Fit the cap (5) on the shaft (11), couple it to the cap (21) and close carefully. Tighten the screws (40) with a torque of 3 Nm;
- Once done, charge the spring of the group (13) with the screw (45). Keep the shutter (8) raised, using the lever (4), until the screw head
  (45) re-enters the cap 5 (Fig. 5);
- Install the balancer adhering to the directions supplied in the "Balancer operating manual".
-

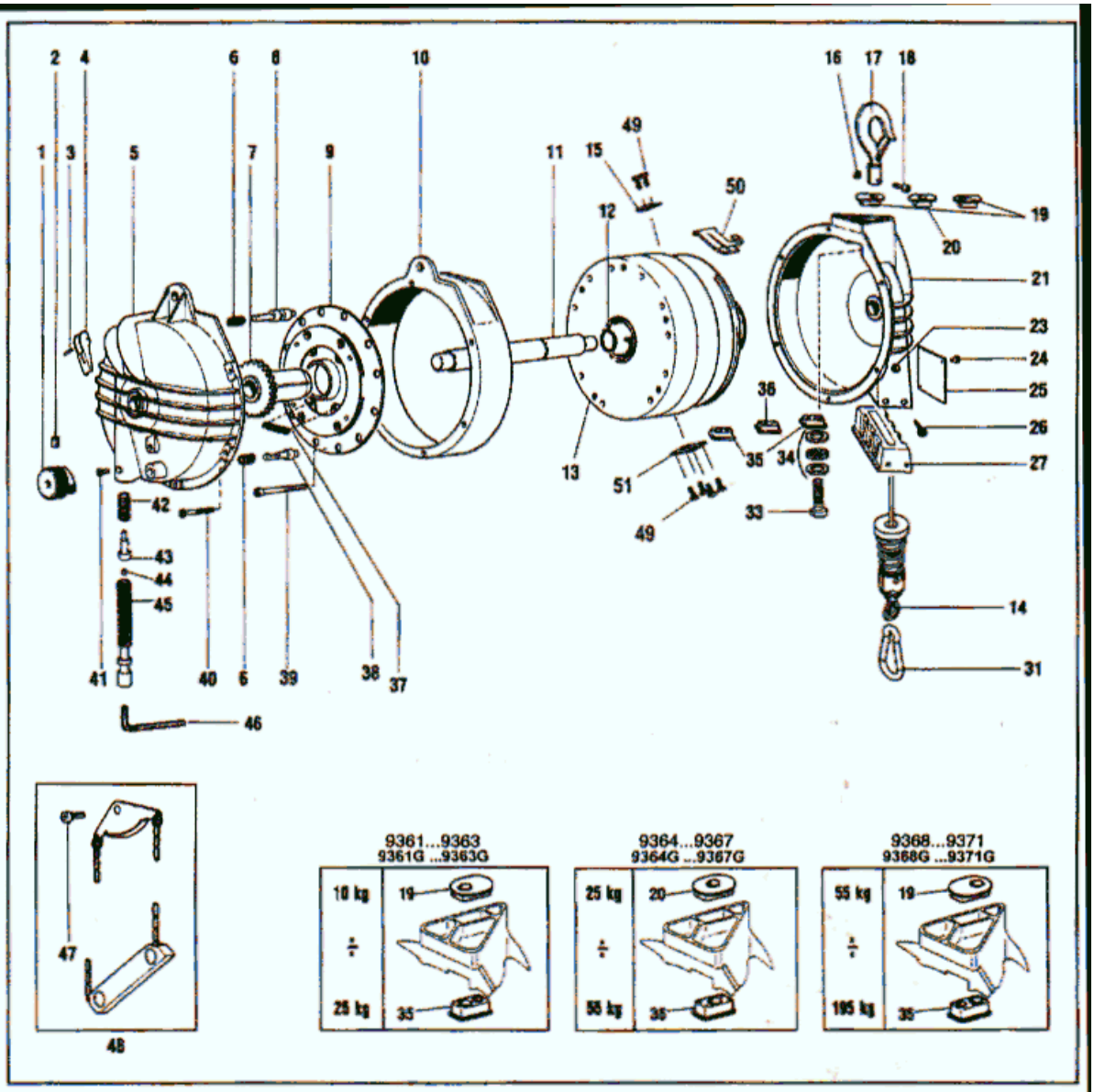
- ***Spring drum breakage***
- If the balancer is blocked, check that the drum spring is not discharged (condition that blocks the balancer as if the spring were broken). If you are unable to charge the balancer by adhering to the procedure described in paragraph “Balancer adjustment”, **this means that the drum spring is probably broken**.

⚠ ***WARNING: ensure that the spring is charged before carrying out any type of check.***

WARNING - DANGER: DO NOT open the drum and/or attempt to replace the spring for any reason whatsoever. This operation is extremely dangerous and could seriously injure anyone.

WARNING - DANGER: dispose of the drum containing the broken spring in compliance with prevailing regulations. DO NOT dump it together with other waste or scrap since opening it, even accidentally, is VERY DANGEROUS and could seriously injure 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.



Pos.	Qt.		Codice
1	1		30638
2	1		10101
3	1		10496
4	1		31169
5	1	9361 ...9371	49026
5	1	9361G ...9371G	49026N
6	2		30348
7	1	9361/...G ...9369/...G	30354
	1	9370/...G ...9371/...G	38313
8	1		30347
9	1	9361/...G ...9369/...G	70081
	1	9370/...G ...9371/...G	70165
10	1	9370/...G ...9371/...G	44175
11	1	9361/...G ...9369/...G	30349
	1	9370/...G ...9371/...G	38299
12	1		10160
13	1	9361/...G	72454
	1	9362/...G	72455
	1	9363/...G	72456
	1	9364/...G	72457
	1	9365/...G	72458
	1	9366/...G	72459
	1	9367/...G	72460

Pos.	Qt.		Codice
13	1	9368/...G	72461
	1	9369/...G	72462
	1	9370/...G	72463
	1	9371/...G	72464
14	1		72542
15	1		33944
16	1		10691
17	1		70082
18	1		10690
19	1	9361/...G ...9363/...G	31221
	1	9368/...G ...9371/...G	31221
20	1	9364/...G ...9367/...G	31223
21	1	9361 ...9371	49027
21	1	9361G ...9371G	49027N
23	6		10429
24	2		10411
25	1		——
26	4		10477
27	1		38581
31	1		20132
33	1		31420

Pos.	Qt.		Codice
34	1		10542
35	1	9361/...G ...9363/...G	31220
	1	9368/...G ...9371/...G	31220
36	1	9364/...G ...9367/...G	31222
37	2		30352
38	1		32106
39	6	9361/...G ...9369/...G	11529
	6	9370/...G ...9371/...G	11530
40	6	9361/...G ...9369/...G	10187
	6	9370/...G ...9371/...G	10685
41	1		10189
42	1	9361/...G ...9369/...G	30355
	1	9370/...G ...9371/...G	30640
43	1		30356
44	1		10122
45	1		30353
46	1		10270
47	1		30623
48	1		70084
49	6		11554
50	1		42179
51	1		33932

DICHIARAZIQNE 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
Name und Adresse des Herstellers
Naam en adres van de fabrikant

TECNA S.P.A.
VIA MEUCCI, 27
40024 CASTEL S. PIETRO TERME (BO)
ITALY

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

Modello - Model - Type - Modelos - Typen - Modellen	**9361 - 9362 - 9363 - 9364 - 9365- 9366 9367 - 9368 - 9369 - 9370 - 9371 9361G - 9362G - 9363G - 9364G 9365G- 9366G-9367G - 9368G - 9369G 9370G - 9371G**
Numero di serie - Serial number - Numéro de série da/from/de/de/von/van	**000001**
Número de fabricación - Serie-Nummer - Serienummer a/to/a/a/bis/tot	**039999**

A cui si riferisce la presente dichiarazione è conforme al seguente standard:
To which this declaration relates is in conformity with the following standard:
Objet de certificat, est conforme à la norme suivante:
Objeto de este certificado, es conforme a la norma siguiente:
Auf die sich die gegenwärtige Erklärung bezieht, mit folgender Norm konform ist:
Waarnaar deze verklaring verwijst is conform norm:

DIN 15112

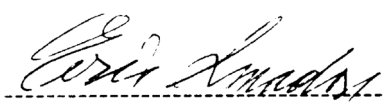
Ai sensi delle direttive CEE:
Following the provisions of EEC Directives:
Conforme aux prescriptions des Directives CEE:
Conforme a las prescripciones y directivas de la CEE:
Gemäss EG-Richtlinien
Volgens de E.E.G.-Richtlijnen

2006/42/EC

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

TECNA S.p.A.
VIA MEUCCI, 27
40024 CASTEL S. PIETRO TERME (BO)
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:
Naam en handtekening van de geautoriseerde persoon voor het opstellen van de conformiteitsverklaring:



Ezio Amadori 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 20/03/2012