DYNATECH PROGRESSIVE SAFETY GEAR

MODELS

ASG-100-UD/ ASG-100

ASG-120-UD/ ASG-120

ASG-121-UD/ ASG-121

INSTRUCTIONS FOR USE AND MAINTENANCE

ATISAE
ASISTENCIA TÉCNICA INDUSTRIAL, S.A.E.

CERTIFICADO DE EXAMEN C.E. DE TIPO

EC TYPE-EXAMINATION CERTIFICATE

Según el anexo V parte A de la Directiva 95/16/CE / According annex V part A of Directive 95/16/EC

Número de certificado. / Certificate number	**ATI / LD–VA / M154A-1 / 06**
Organismo Notificado. Notified Body	**Asistencia Técnica Industrial S.A.E. (ATISAE)** Avda. de la Industria, 51 bis E 28760 Tres Cantos MADRID (ESPAÑA) Nº de identificación **0053.**
Clase. Tipo. Product. Type	**Paracaidas progresivo** / Progressive safety gear **Dispositivo de frenado contra sobrevelocidad en subida.** Upwards overspeed braking mean
Modelo / Model	**Serie ASG-1xx-UD / ASG 1xx**
Fabricante. Manufacturer	**DYNATECH, DYNAMICS & TECHNOLOGY S.L.** **P. I. Pina del Ebro, sector C, parcela 9** **50750 ZARAGOZA (ESPAÑA).**
Propietario del certificado. Certificate Owner	**DYNATECH, DYNAMICS & TECHNOLOGY S.L.** **P. I. Pina del Ebro, sector C, parcela 9** **50750 ZARAGOZA (ESPAÑA).**
Fecha de presentación. Date of submission	**21/11/2006**
Fecha del examen de tipo./ Date of EC type examination	**11/12/2006**
Laboratorio de ensayo. Test laboratory	**(Véase apartado 2.1.)**/ Please refer to section 2.1.
Informe de ensayo / Test report	**(Véase apartado 2.1.)**/ Please refer to section 2.1.
Directiva CE aplicada. / EC- Directive.	**Directiva 95/16/CE de 29 de Junio de 1995**
Norma de referencia. / Reference standard	**EN 81-1/2:1998**
Informe de ATISAE. / ATISAE report	**MD_DEU_060551** **MD_DEU_063360**
Plazo de validez / Expiry date	**Indefinido** / indefinite

Declaración: El componente de seguridad permite al ascensor sobre el que se instale satisfacer los Requisitos de Seguridad y Salud de la citada Directiva usándose dentro del alcance que queda establecido en el anexo técnico de este certificado, así como con las condiciones de instalación indicadas.

Statement: The safety component allows the lift on which installed to satisfy the requirements of health and safety of Lifts Directive when used among the scope which is established in the technical annex to this certificate, as well as under the shown installation conditions.

Procedimiento EC 1.3 Q4 Anexo 4 Rev 0 Septiembre 2005

Tres Cantos, a 11 de DICIEMBRE de 2006

José Manuel Flórez González
Coordinador Técnico

Este certificado consta de esta portada, un anexo técnico de 2 hojas y 2 planos / documentos. Su reproducción carece de validez si no se realiza totalmente.
This certificate consists of this main page, a technical annex with 2 pages and 2 drawings./documents It shall be reproduced with all its pages to be considered valid.

ATISAE

ANEXO TECNICO AL CERTIFICADO CE DE EXAMEN DE TIPO ATI/LD-VA/M154A-1/06
TECHNICAL ANNEX TO THE EC TYPE EXAMINATION CERTIFICATE (ABOVE)

1. **Campo de aplicación:**
Scope of application

El presente certificado amplia y sustituye al certificado:
This certificate enhances and supersedes the previous certificate

ATI/LD-VA/M154/06

La ampliación consiste en la utilización de guía cepillada tanto lubricada como seca. Se introducen denominaciones particulares para cada caso.
The extension consists of the application of machined guide rails oiled and dry. Specific trade marks are introduced for each.

1.1. **Paracaidas de accionamiento progresivo. (sentido descendente)**
Progressive safety gear (acting downwards)

El siguiente cuadro resume las características de aplicación del paracaídas para los rangos admisibles de masa suspendida.
The following table summarises the scope for the safety gear for different permissible masses.

TIPO	Tipo guia Guide rail	Masa admisible (kg) Permisible mass	Vn (m/s)	Vd (m/s)	Lubricación Oiling
ASG-100 / ASG-100 UD	A	515 ÷ 2.139	1.75	2.33	(1)
ASG-120 / ASG-120 UD	B	693 ÷ 4.233	1.75	2.33	(1)
ASG-121 / ASG-121 UD	B	598 ÷ 4.019	1.75	2.33	(2)

Clave de la tabla / Key:
- **Tipo de guía A estirada/calibrada, B mecanizada**. / guide rail surface condition. A drawn, B machined.
- **Vn velocidad nominal máxima**./ maximum rated speed.
- **Vd velocidad de disparo máximo**. / maximum tripping speed.
- **Lubricación (Véase sección 1.5.)** /oiling condition (please refer to section 1.5)

1.2. **Dispositivo de frenado. (sentido ascendente)**
Braking device (acting upwards)

Características de aplicación del dispositivo como dispositivo de frenado en dirección ascendente.
Scope for the Upwards Braking device.

TIPO	Tipo guia Guide rail	Fuerza de frenado (N) Braking force	Vn (m/s)	Vd (m/s)	Lubricación Oiling
ASG-100 UD	A	5.408 ÷ 16.035	1.75	2.33	(1)
ASG-120 UD	B	7.228 ÷ 38.486	1.75	2.33	(1)
ASG-121 UD	B	9.502 ÷ 36.689	1.75	2.33	(2)

Clave de la tabla / Key: **(véase sección 1.1.)** / (please refer to section 1.1)

1.3. **Tipo de reglaje:**
Adjustment.
Reglaje continuo.
Continuous adjustment

1.4. **Velocidad nominal y de disparo máxima**
Maximum rated and tripping speed
(véase sección 1.1 y 1.2)
(please refer to section 1.1 and 1.2)

1.5 **Datos de las Guías**
Guide rails data.

Espesores de guía: 7 ÷ 16 mm
Guide rails blade widths.

Estado lubricación:
Oiling condition of the guide rails.
(1) DROSERA MS150 (ISO VG 150)
(2) Sin lubricación / not oiled

Estado superficie de guía: calibrada / mecanizada
Surface condition of the guide rails. Drawn / machined

Anchura mínima de frenado: 25 mm
Minimum gripping width

ORGANISMO NOTIFICADO ATISAE 0053

ATISAE

2. Notas.
Remarks.

2.1. Laboratorios de ensayo.
Test laboratories.

AIMME INSTITUTO TECNOLÓGICO METALMECÁNICO
Parque Tecnológico. Avda Leonardo Da Vinci
46980 PATERNA (VALENCIA)

Ensayos
Tests

S06-00029 (08.03.2006)
S06-00030 (08.03.2006)
S06-01220 (03.11.2006)
S06-01221 (03.11.2006)
S06-01219 (03.11.2006)
S06-01564 (03.11.2006)

2.2. **La masa total declarada puede diferir de la masa total admisible en ± 7,5 %.**
The mass stated may differ from the permissible mass by 7.5 %.

2.3. **Los valores de masa admisible (1.1.) y fuerza de frenado (1.2) actuando el dispositivo como medio de frenado en ambas direcciones, están relacionados de una forma fija debido a que para ambos casos se utiliza la misma regulación en un único elemento y no pueden ajustarse de forma separada. Los medios de frenado (hacia arriba y hacia abajo) se presentan en un único bloque.**
The values of permissible mass (1.1.) and Braking force (1.2.) acting as braking mean in both directions, because of the device uses the same adjustment value for both in one single element so they cannot be adjusted separately. Both braking means (up and down) are assembled in one only block.

2.4. **Las fuerzas de frenado admisibles del dispositivo de frenado deberán utilizarse en la instalación del ascensor de modo que no se produzca una deceleración superior a 1gn con la cabina vacía en movimiento ascendente, responsabilidad que recae en el instalador del ascensor. Además la deceleración debe ser suficiente para que como mínimo el contrapeso pueda llegar a sus amortiguadores a la velocidad nominal.**
The permissible braking forces shall be used in a particular lift installation in such a way that the top retardation do not achieve 1 gn with empty car moving in upward direction. The responsibility to fulfil this premise is under the installer of the lift. Furthermore the retardation must be enough to achieve a that the counterweight hits its buffers as much as at rated speed.

2.5. **El dispositivo de frenado actuando en subida ejerce su fuerza de frenado sobre las guías. En tanto que el dispositivo de frenado solo representa el elemento que proporciona la deceleración de cabina en el movimiento ascendente incontrolado, el elemento que controla la velocidad ascendente debe ser un limitador de velocidad que también active el dispositivo de frenado según 9.9. de EN 81-1:1998.**
The upwards braking device applies the braking force on the guide rails. Since the brake device represents only de decelerating element of the protection device against overspeed for the car moving upwards direction, the speed monitoring element for upwards direction must be an overspeed governor which also trips the braking device as per 9.9. of EN 81-1:1998

2.6. **La certificación afecta a los elementos de frenado y no incluye a los elementos de conexión, palanquería, ni a la actuación del dispositivo eléctrico.**
The certificate affects to the gripping elements and does not include, either the connection elements, safety gear rods, or the actuation of the electric safety device.

2.7. **La utilización del dispositivo se realizará según las condiciones dadas en la norma EN 81-1:1998. Cuando se utilice en ascensores hidráulicos o en contrapeso, solo se utilizarán los modelos que no están marcados UD.**
This device must be used according the conditions given in EN 81-1:1998. If it is used in hydraulic lifts or counterweights only models that are not UD shall be used.

2.8 **Se adjunta a la presente certificación el siguiente documento:**
The following document is enclosed to this certificate:

DESIGNACIÓN Number	FECHA Date	LEYENDA Title
S/n	17/03/06	CONJUNTO ASG 100 UD / ASG 120 UD / ASG 121 UD
S/n	S/f	CONJUNTO ASG 100 / ASG 120 / ASG 121

Estos planos se adjuntan con objeto de proporcionar identificación e información sobre el diseño básico del componente de seguridad.
These drawings are enclosed in order to provide identification and information about the basic design of the safety component.

2.9 **Este certificado perderá su validez debido a cambios de diseño, cambios en la legislación o en la normativa aplicable. El fabricante deberá poner en conocimiento de este Organismo Notificado cualquier cambio de diseño.**
This certificate would loose its validity because of design modifications, changes in the applicable law or standards. The manufacturer must communicate to this Notified Body any change of the design.

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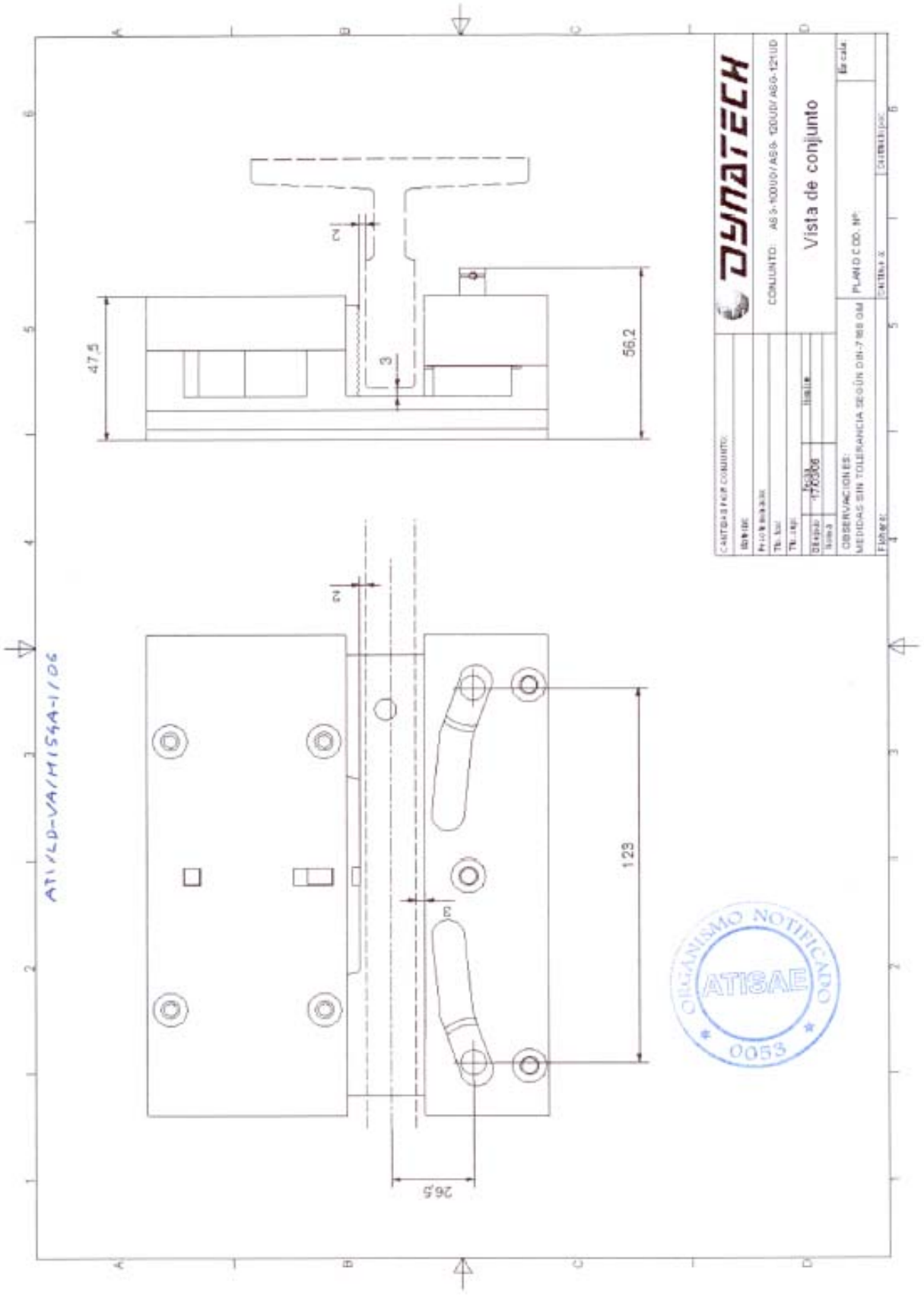
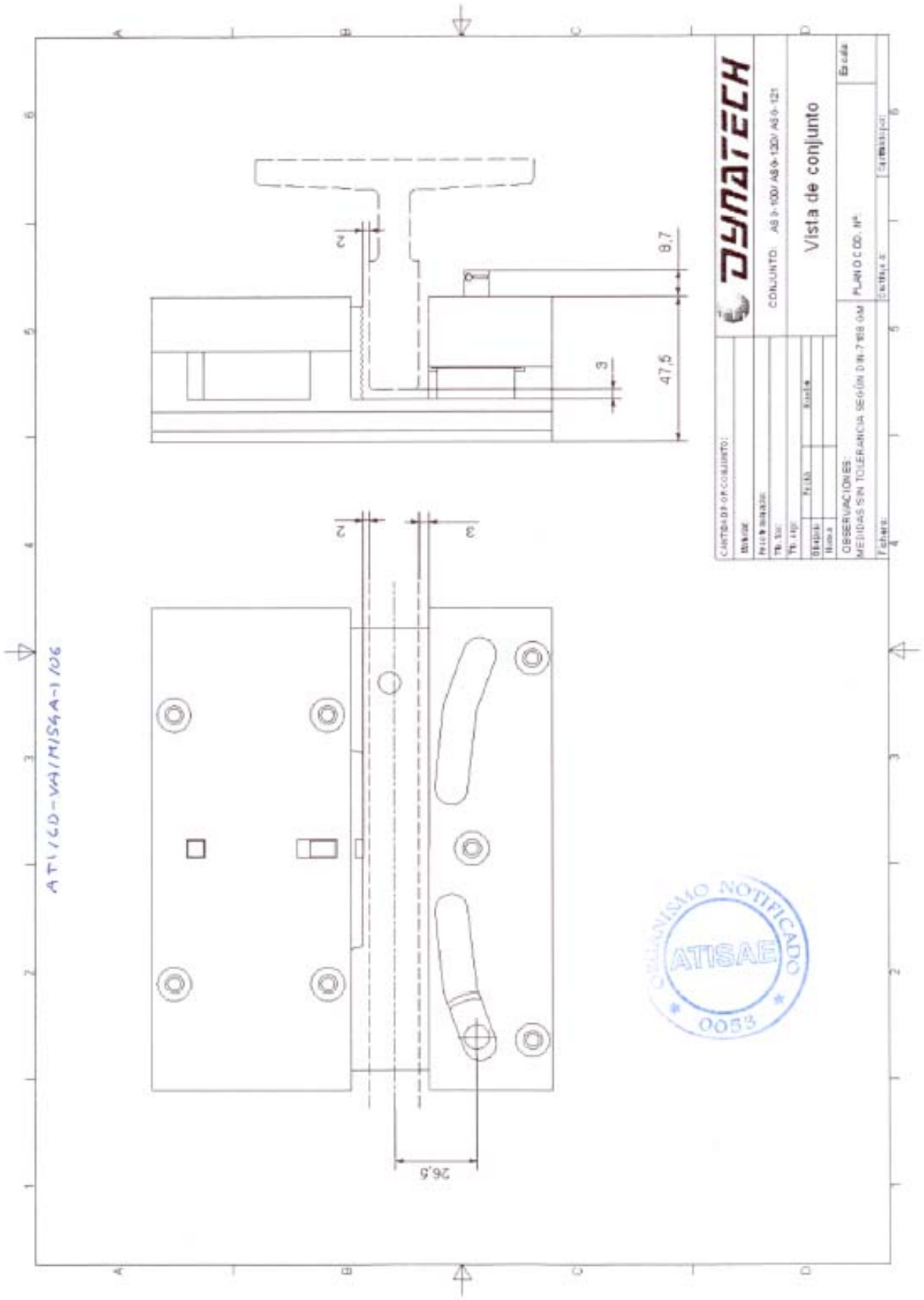
INSTRUCTIONS: ASG-Series 1

Fecha: 21-11-06 Check: 02



INSTRUCTIONS: ASG-Series 1

Fecha: 21-11-06 Check: 02



INSTRUCTIONS FOR USE AND MAINTENANCE

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1 GENERAL INDICATIONS.

Each supplied set of safety gears has been regulated at the factory according to the required use characteristics: Total weight (P+Q) and the guide rail thickness. These characteristics, the EC type examination number and the serial number are shown on the protection plates attached to the safety gear boxes.

***It is absolutely forbidden**:*

a) To combine and install safety gear boxes with different serial numbers.

b) To use a set of safety gears for installations with different characteristics to the ones shown on the protection plates of their safety gear sets.

c) To intervene on any safety gear component.

DYNATECH DYNAMICS & TECHNOLOGY, S.L. will not be responsible of any damage caused by not observing any point of these general indications.

2 SAFETY GEAR INSTALLATION.

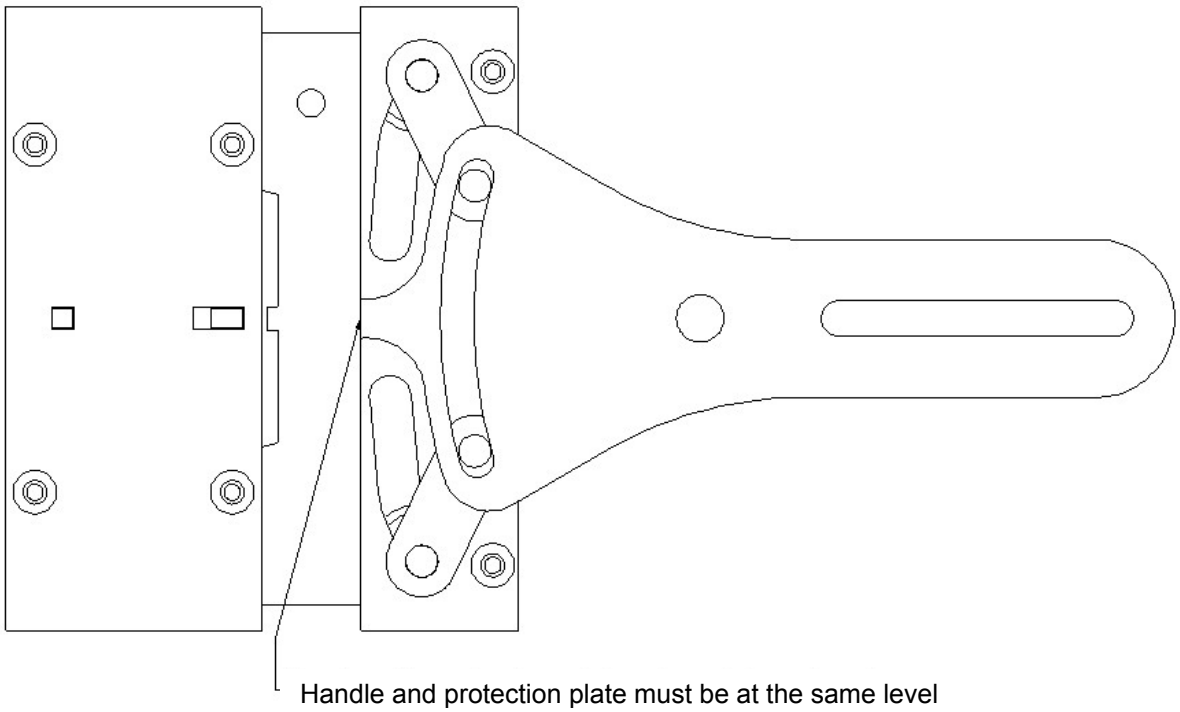
The Standard requires that the safety gear installation must be done including a security contact of AC - 15 or DC - 13 type, according to EN 60947 - 5 - 1.

2.1 TO THE SLING MAKER:

To fix this safety gear on the sling is necessary a plate of 6 mm thickness. This plate is supplied with the DYNATECH T-25 extensible driving bar.

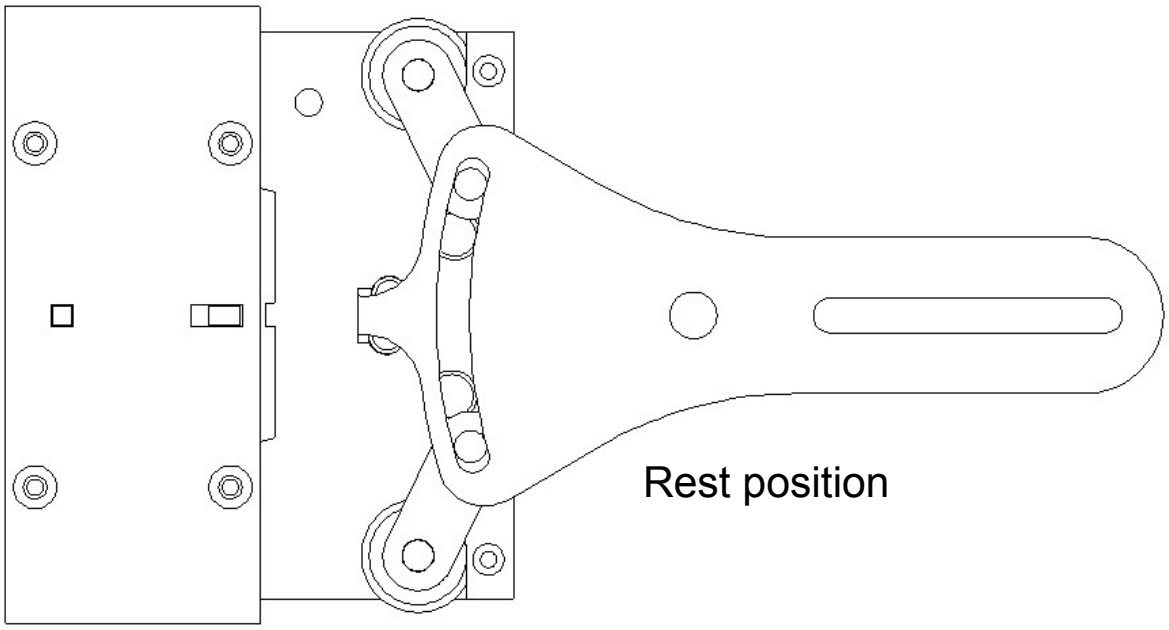
ASG-100-UD/ ASG-120-UD/ ASG-121-UD

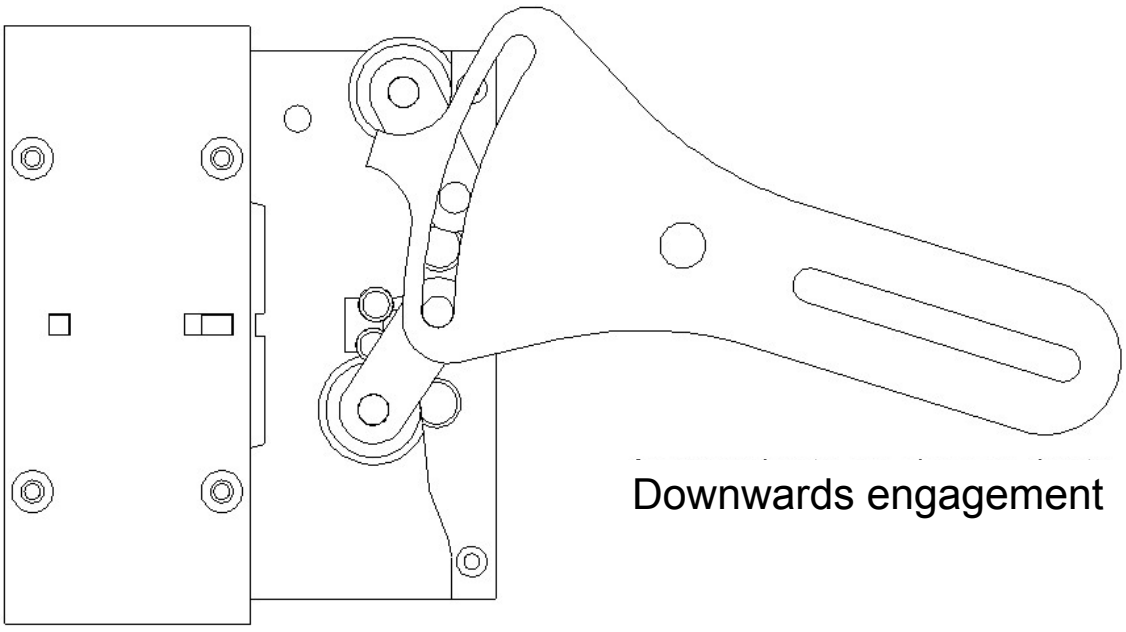
If the DYNATECH T-25 extensible driving bar is used, the end of the handle and the protection plate of the rollers must be at the same level in the rest position (see the instructions of use of the T-25 extensible driving bar).

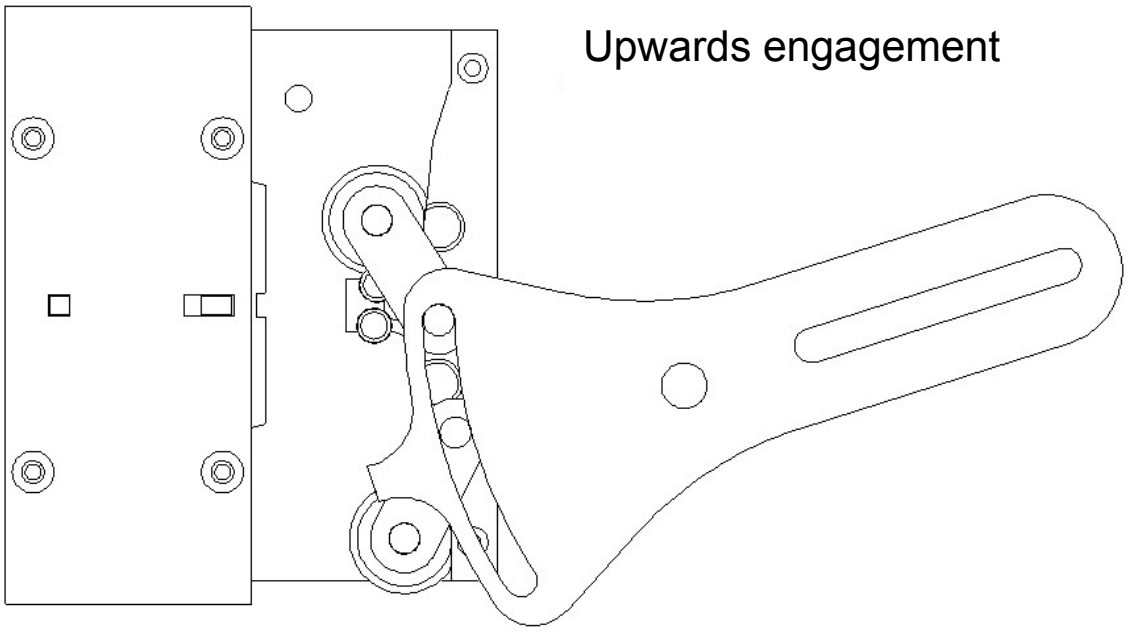


Once the safety gear is well placed and its rollers are attached to the driving bars, it should be checked that both rollers act synchronized in accordance to the driving bar commands. The sling maker is responsible for the proper location of the safety gear on the sling, as well as the adjustment checking and synchronized working of the driving bar. The

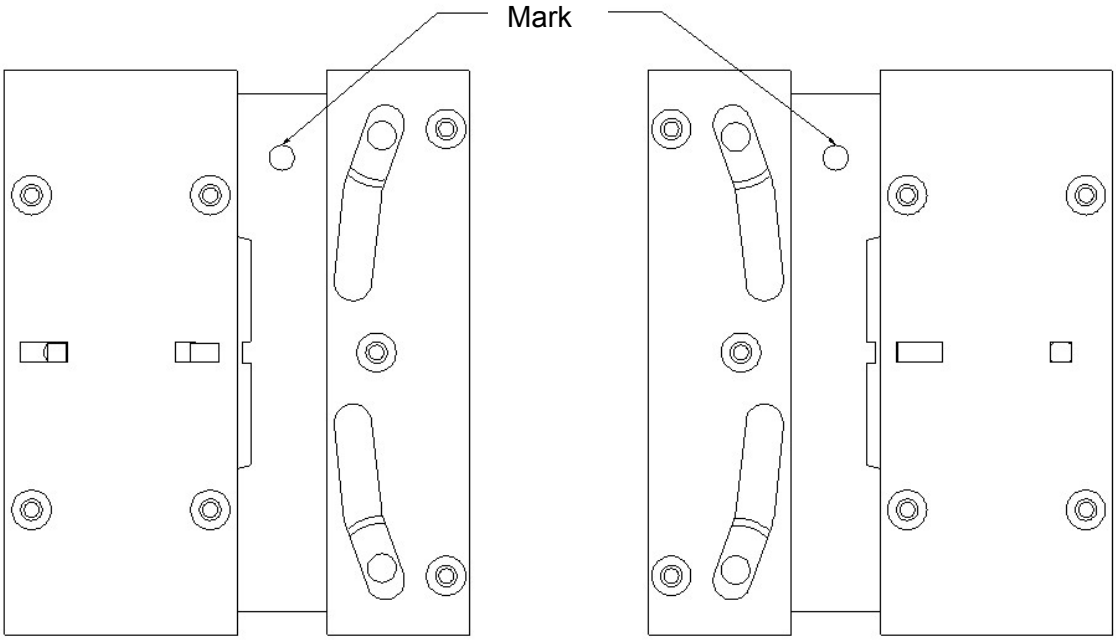
pin of the roller, in its rest position, must be at the upper and lower position of the protection plate.





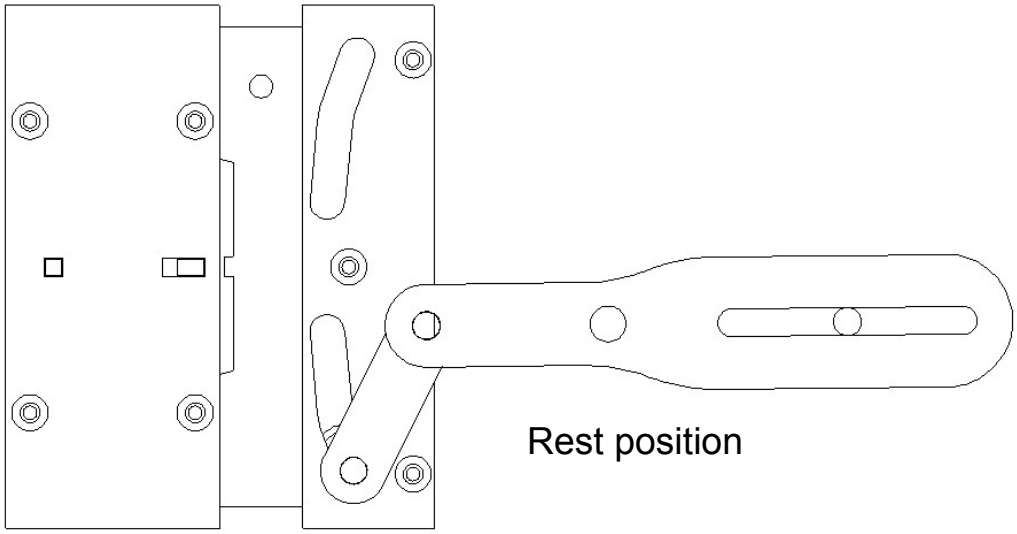


Remark: A circular mark in the place where the guide rails inside the safety gear are situated, will indicate the upper part of it. It is very important to make sure that the safety gears are always situated in the correct position, with the circular mark in the upper part.

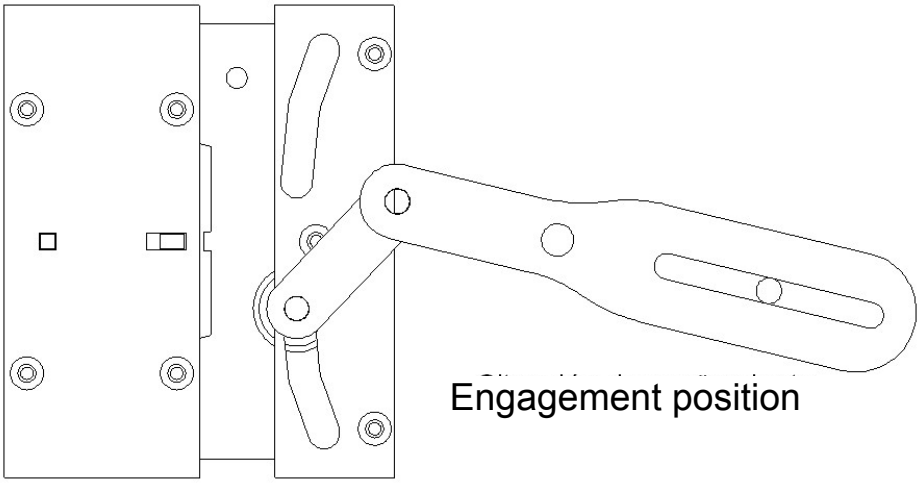


ASG-100/ ASG-120/ ASG- 121

If the Dynatech extensible driving bar is used, at the rest position, the position of the handle will be like it is shown in the following figure.



At the engagement situation, the position of the handle will be like it is shown in the following figure:



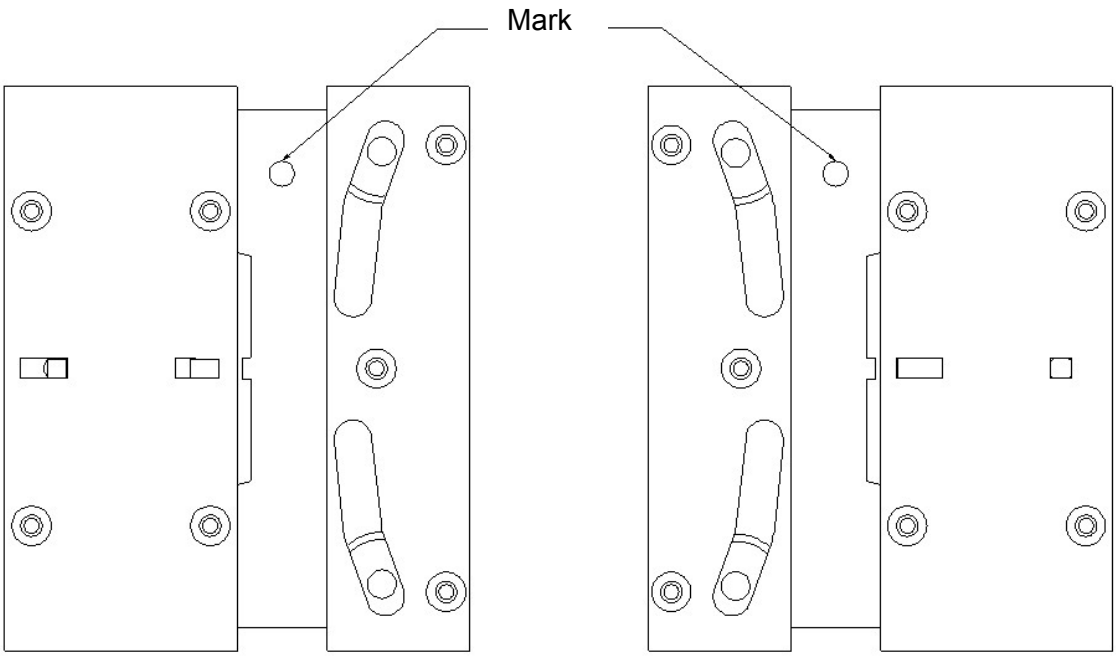
Once the safety gear is well placed and the rollers of both safety gears are attached to the driving bars, it should be checked that both rollers act synchronized in accordance to the driving bar commands. The sling maker is responsible for the proper location of the safety gear on the sling, as well as the adjustment checking and synchronized working of the driving bar. The pin of the roller, in its rest position, must be at the lower position of the protection plate.

2.2 TO THE INSTALLER:

During the installation at the well, first of all, the guide rails must be introduced in the groves of the safety gear housings. Then the position of the guide rail in the housing will be adjusted as follows: The side of the guide rail, 2 mm from the brake block; the guide head, 3 mm from the bottom of the groove (see drawings).

To make easy the adjustment at work of the distances between the faces of the guide rails and the safety gear parts, which are opposite the guide rail, it will be possible to use plates which will allow the emplacement of the guide rail in its correct position in the grooves of the safety gear. The plates must be removed once the adjustment operation has finished.

Nota: The installer must be sure that the sling maker has placed the safety gears with the circular mark in the upper position.



3 USE AND MAINTENANCE.

The non-fulfilment of the following prescriptions may produce deceleration values and breaking distances which could not be in accordance with the Standard.

3.1 GUIDE RAILS:

a) The used guide rails must be cold-drawn oiled for ASG-100 and ASG-100 UD. The used guide rails must be machined oiled for ASG-120 and ASG-120 UD. The used guide rails must be machined dry for ASG-121 and ASG-121 UD. The admissible tolerances for the guide rails thickness must be between –0 and +0.10 mm.

MODEL	ASG-100/ASG-100 UD	ASG-120/ASG-120 UD	ASG-121/ASG-121 UD
GUIDE RAIL	COLD-DRAWN	MACHINED	MACHINED
LUBRICATIÓN	OILED	OILED	DRY

b) The safety gear can be used with this type of guide rail for a rated speed of not more than 1,75 m/s, and a maximum governor tripping speed of 2,33 m/s.

c) The gripping width must be 25 mm or greater.

d) If after the safety gear performance, scratched guide zones placed within a distance of less than 1 meter between them are found, it is recommended to replace the affected guide rail parts.

e) The guide rails must be lubricated with ISO VG 150 lubricant oil.

f) For guide rails widths: 7-16 mm.

3.2 SPEED GOVERNOR:

The necessary load that activate the safety gear is 150 N.

The speed governor rope tension must be enough to warrant, during the governor performance, a traction of at least 300 N at the connection point of the safety gear driving bar.

3.3 RANGE OF USE:

The standard P+Q table is shown bellow. The nominal values are in the central column of the table.

ASG-100 UD/ ASG-100

P+Q Minimum (Kg.)	*P+Q Nominal (Kg.)*	*P+Q Maximum (Kg.)*
477	**515**	553
542	**585**	628
605	**653**	701
691	**747**	803
787	**850**	913
897	**969**	1041
975	**1053**	1131
1090	**1178**	1266
1202	**1299**	1396
1266	**1368**	1470
1408	**1522**	1636
1540	**1664**	1788
1682	**1818**	1954
1849	**1998**	2147
1979	**2139**	2299

ASG-120 UD/ ASG-120

P+Q Minimum (Kg.)	*P+Q Nominal (Kg.)*	*P+Q Maximum (Kg.)*
642	**693**	744
723	**781**	839
803	**868**	933
874	**944**	1014
981	**1060**	1139
1107	**1196**	1285
1197	**1293**	1389
1332	**1440**	1548
1542	**1667**	1792
1720	**1859**	1998
1952	**2110**	2268
2253	**2435**	2617
2524	**2728**	2932
2799	**3025**	3251
3025	**3270**	3515
3417	**3693**	3969
3916	**4233**	4550

ASG-121 UD/ ASG-121

P+Q Minimum (Kg.)	*P+Q Nominal (Kg.)*	*P+Q Maximum (Kg.)*
554	**598**	642
631	**682**	733
705	**762**	819
770	**832**	894
869	**939**	1009
985	**1064**	1143
1066	**1152**	1238
1192	**1288**	1384
1379	**1490**	1601
1597	**1726**	1855
1838	**1987**	2136
2134	**2306**	2478
2406	**2601**	2796
2639	**2852**	3065
2858	**3089**	3320
3236	**3498**	3760
3718	**4019**	4320

3.4 *FRICTION PARTS REPLACEMENT:*

The friction parts, brake shoes and rollers, can support three free fall upwards performances and three free fall downwards performances, as it is exposed in the Standard EC type-examination criteria.

Anyway, after a real free fall performance of the safety gear, it is recommended to replace the friction parts. In that case, you can contact Dynatech or your nearest distributor, in order to know the procedure to be followed.

It is not necessary to replace the braking parts caused by normal inspection tests, unless the braking distance surpass the double of the one obtained at the very first test of the installation.

In order to have a better control, the maintenance personnel must have a register of the safety gear performances, in which the serial number and the number of performances will be annotated.

3.5 MAINTENANCE:

3.5.1 CLEANING:

It is very important to make sure that there is not any alien element inside the safety gear housing, in order to guarantee the proper work of the moving parts.

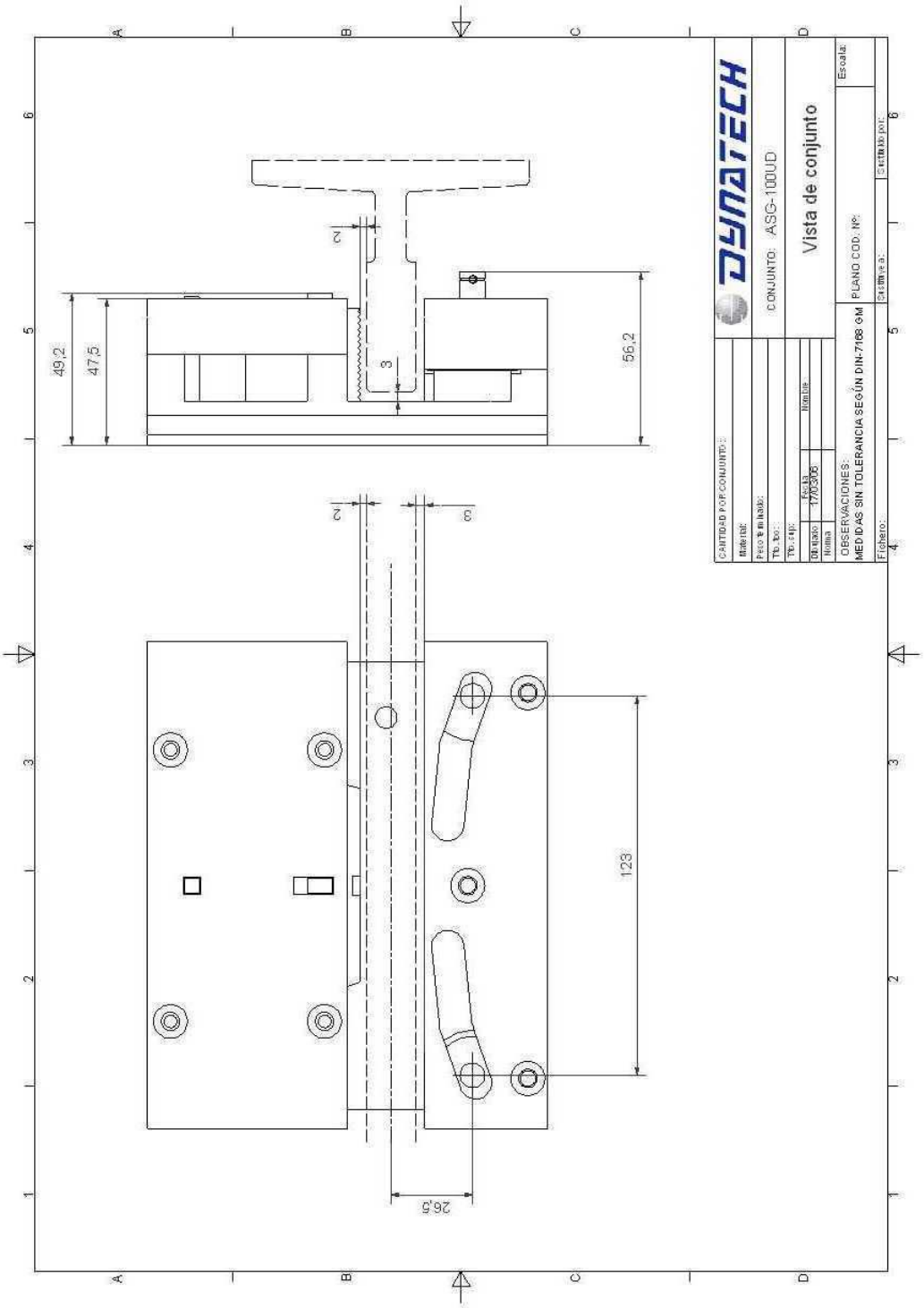
3.5.2 CORROSION:

Dynatech safety gears have anticorrosive protection in all cases. However, a periodic checking must be done to make sure that all the moving parts of the safety gear still in perfect work conditions. A wedging test is not necessary, but a simple check of its free movements and a visual checking of the surfaces general condition.

These verifications must be done more often when the installation is placed inside a especially corrosive atmosphere.

4 GENERAL DRAWING

ASG-100-UD/ ASG-120-UD/ ASG-121-UD



ASG-100/ ASG-120/ ASG-121