



LIMITADOR DE VELOCIDAD DYNATECH/

DYNATECH OVERSPEED GOVERNOR/

LIMITEUR DE VITESSE DYNATECH/

GESCHWINDIGKEITSBEGRENZER

DYNATECH/

VEGA

INSTRUCCIONES DE USO Y MANUTENCIÓN/

INSTRUCTIONS FOR USE AND MAINTENANCE/

INSTRUCTIONS D'USAGE ET ENTRETIEN/

GEBRAUCHS- UND WARTUNGSANLEITUNG/

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

ATISAE, Organismo de Control Autorizado acreditado por ENAC con nº OC-1/025

Número de certificado. / Certificate number	ATI / LD-VA / M155A-3 / 11
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	Limitador de velocidad / Overspeed governor
Modelo / Model	VEGA
Fabricante. Manufacturer	DYNATECH, DYNAMICS & TECHNOLOGY S.L. Pol. Ind. Pina del Ebro. Sector C p-9 50750 Pina de Ebro ZARAGOZA (ESPAÑA).
Propietario del certificado. Certificate Owner	DYNATECH, DYNAMICS & TECHNOLOGY S.L. Pol. Ind. Pina del Ebro. Sector C p-9 50750 Pina de Ebro ZARAGOZA (ESPAÑA).
Fecha de presentación. Date of submission	11/02/2011
Fecha del examen de tipo. Date of EC type examination.	06/09/2011
Laboratorio de ensayo. Test laboratory	(véase en el anexo técnico sección 2.7). (Please refer to technical annex section 2.7)
Informe de ensayo / Test report	(véase en el anexo técnico sección 2.7). (Please refer to technical annex section 2.7)
Directiva CE aplicada. / EC- Directive.	Directiva 95/16/CE de 29 de Junio de 1995
Norma de referencia. / Reference standard	EN 81-1:1998+A3:2009 EN 81-2:1998+A3:2009
Informe de ATISAE. / ATISAE report	MD_EVN_110070.001 (06.09.2011) MD_EVN_110070 (06.09.2011) MD_DEU_111244.001 (06.09.2011) MD_DEU_070744 (21.12.2007)
Plazo de validez / Expiry date	Indefinido / (véase en el anexo técnico sección 2.9). Indefinite / (Please refer to technical annex section 2.9)

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.

Tres Cantos, a 06 de SEPTIEMBRE de 2011

Este certificado consta de esta portada, un anexo técnico de 4 hojas y 3 planos / documentos. Su reproducción carece de validez si no se realiza totalmente.

This certificate consists of this main page, a technical annex with 4 pages and 3 plans/documents. It shall be reproduced with all its pages to be considered valid.



José Manuel Flórez González
Director Técnico de Elevación

Procedimiento EC.12.04 Anexo 4 Rev.0 Septiembre 2005

ANEXO TECNICO AL CERTIFICADO CE DE EXAMEN DE TIPO AT/ LD-VA/M155A-3/11
 TECHNICAL ANNEX TO THE EC TYPE EXAMINATION CERTIFICATE (ABOVE)

- 1. Campo de aplicación:**
 Scope.
- 1.1. Velocidad de disparo:** **0.40 ÷ 2,87 m/s**
 Permissible tripping speed.
- 1.2. Velocidad nominal:** **≤2,40 m/s**
 Permissible rated speed.
- 1.3. Diámetro primitivo de la polea del limitador:** **190.5 mm**
 Pitch diameter of the governor pulley
- | | | |
|--|-------------------------------|-----------------|
| | cable / rope 6.0 mm Ø | 190.5 mm |
| | cable / rope 6.3 mm Ø | 191.5 mm |
| | cable / rope 6.5 mm Ø | 195.0 mm |
- 1.4. Cable:**
 Driving rope:
- 1.4.1. Diámetro:** **6.0 / 6.3 / 6.5 mm**
 Diameter.
- 1.4.2. Composición:** **6 x 19+1**
 Art.
- 1.5. Mínima fuerza tensora: (véase nota 2.6)** **1000 N**
 Minimum tensioning force. (see remark 2.6)
- 1.6. Fuerza transmitida a los medios de frenado con mínima fuerza tensora.**
 Tensile force at minimum tensioning force.
- 1.6.1. Hacia abajo / downwards :** **1000 N**
- 1.6.2. Hacia arriba/ upwards :** **450 N**
- 2. Notas.**
 Remarks.
- 2.1. La ampliación del alcance establecido por este certificado consiste en los siguientes ítems:**
 The scope extension is summarised in the following items:
- a) **Limitador utilizado como actuador del elemento de parada en un sistema de protección contra movimiento incontrolado de cabina (según 9.11 de EN 81-1:1998+A3:2009); véase parte 3 y aviso legal.**
 governor used as UCM tripping device for a stopping element in a protection system against uncontrolled car movement (according 9.11 of EN 81-1:1998+A3:2009); see part 3 and disclaimer.
 - b) **Se modifican los centrifugos añadiendo un pico en la parte posterior.**
 centrifugal pieces are modified adding a protruding edge at the rear.
- 2.2. Sobre el dispositivo del limitador de velocidad debe colocarse una placa con los datos indicados a continuación:**
 It shall be placed an identifiable plate on the overspeed governor with the following items.
- | | |
|--|--|
| Nombre del fabricante
Manufacturer's name | Signo del examen de tipo y sus referencias
CE type-examination mark and its references |
| Velocidad de disparo mecánico para la cual ha sido ajustado
The actual tripping speed for which it has been adjusted | |
- El fabricante también informará del diámetro de cable admisible, dado que existen diferencias en la polea y si el limitador es de actuación SOLO BAJADA. Además se debe indicar el sentido de giro para actuación en bajada.**
 The manufacturer shall also inform about the rope diameter for which the governor is intended because there are differences in the groove, and the condition of ONLY DOWN tripping when required. Furthermore the direction of rotation to operate the safety gear DOWN shall be marked.
- 2.3. El contacto eléctrico de seguridad es de rearme manual (Vn ≥ 1 m/s); o automático (Vn < 1 m/s).**
 The safety electric contact is reset manually or automatically according the contact model used.



- 2.4. Con el conjunto de polea de limitador ubicado en cuarto de máquinas, se proveerán protecciones adecuadas contra daños corporales.
When the governor pulley is located in a machine room, suitable protections shall be provided in order to avoid bodily injuries.
- 2.5. El limitador puede ser instalado en el interior del hueco o en zonas no accesibles cuando se proporcionen los medios solicitados por 9.9.8.3. de EN 81-1. Las características de estos dispositivos no han sido evaluados y no forman parte de esta certificación. El sistema de disparo mostrado en la parte 3 puede ser usado en el sentido de 9.9.8.3.a).
The governor can be located inside the well or at non-accessible places if the means required by 9.9.8.3. of EN 81-1 are provided. The characteristics of such devices have not been assessed and they are not part of this certification. The triggering device shown in part 3 of this certificate can be used in the sense of 9.9.8.3.a).
- 2.6. La mínima fuerza tensora es la producida en el eje de la polea de desvío. La fuerza transmitida a los medios de frenado es la determinada en el ensayo con cable y ranura nuevos y con un ángulo de abrazamiento de 180°.
The minimum tensioning force is the force produced on the axis of the rope deviation pulley. The tensile force is determined in the test with new rope and groove and a wrap angle of 180°.

2.7. Laboratorios de ensayo.
Test laboratories.

Laboratorio / Laboratory
Laboratorio de Ensayo de Materiales (L.E.M.)
E.T.S. Ingenieros Industriales. UPM
C/ José Gutiérrez Abascal, 2
28006 MADRID

Informe / report
2006-001 (26.01.2006)
2006-001/2 (09.06.2006)

Laboratorio de Ensayo de Componentes de Ascensores (L.E.C.A.)
E.T.S. Ingenieros Industriales. UPM
C/ José Gutiérrez Abascal, 2
28006 MADRID

2.8. Se adjunta a la presente certificación los siguientes documentos:
The following documents are enclosed to this certificate.

NUMERO	FECHA	TÍTULO
Number	Date	Title
sn	09.12.05	VEGA
sn	22.08.11	DETALLE SISTEMA PARKING
sn	sf	VEGA SISTEMA PARKING ALFA

Este plano se adjunta con objeto de proporcionar identificación e información sobre el diseño básico del componente de seguridad.
This drawing is 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 previsto.
This certificate would lose its validity because of design modifications, changes in the applicable law or standards. The manufacturer must communicate to this Notified Body any foreseeable change in the design.

- o -



3. Notas sobre la utilización del limitador como actuador del elemento de parada para UCM:

- 3.1. Este componente puede formar parte de un sistema UCM (movimiento incontrolado de cabina) como dispositivo actuador del elemento de parada. El diseñador del sistema tendrá en cuenta las siguientes notas en lo relativo a las distancias y tiempos máximos adicionales que influyen en la distancia de parada cuando utilice este componente.
- 3.2. La capacitación como dispositivo actuador del elemento de parada en la aplicación dada por el art. 9.11 de EN 81-1:1998+A3: 2009, no excluye el examen de tipo o la evaluación correspondiente dentro del alcance de la norma del sistema completo UCM diseñado con el propósito de dar cumplimiento a los requisitos indicados en el artículo 9.11 por medio de los ensayos y pruebas necesarias del conjunto.
- 3.3. Por otro lado se ha reconocido el interés de participar al diseñador del conjunto UCM de las características e interfaces de sub sistemas del UCM mostrando sus características. Este examen se realiza en este sentido ¹⁾.
- 3.4. Descripción del sistema. El bloqueo del limitador de velocidad se obtiene mediante la interposición de una pieza mecánica cuya posición es controlada mediante un electroimán, de manera que en ausencia de corriente esta pieza se sitúa en la trayectoria de los centrifugos del limitador bloqueando su movimiento de giro incluso a muy baja velocidad. La posición de la pieza es monitorizada mediante un sensor inductivo de proximidad cuya señal puede ser gestionada por un sistema de control. La orden de bloqueo debe ejecutarla un sistema de control ajeno a este componente.

Se consideran dos tipos: sistema (alfa) y sistema (beta).

En el sistema beta, existe un muelle oscilante incluido en el modelo que permite un giro adicional de la polea con el limitador enclavado de 24° que permite evitar actuaciones no deseadas del paracaídas en procesos de carga y descarga.

En el sistema (beta) los centrifugos son modificados añadiendo un borde saliente en la parte trasera. El objeto de este borde es reducir la distancia vertical equivalente máxima que es la distancia que podría bajar o subir la cabina antes de que se produjese un bloqueo efectivo del limitador. Se incorpora la modificación en ambos centrifugos excepto en los modelos unidireccionales, que solo lo incorporan en el centrifugo unidireccional, y en el modelo LS cuyos centrifugos no sufren modificaciones.

- 3.5. Distancias verticales equivalentes máximas. Se calculan las distancias máximas verticales para cada tipo variante del limitador VEGA, que son: estándar, BV (baja velocidad) y LS (muy baja velocidad), válidos tanto para la versión bidireccional como unidireccional.

TIPO	Ø _{cable} (mm)	(alfa)		(beta)	
		L (mm)	L (mm)	L (mm)	L (mm)
Estándar	6.0	638.4	357.4		
BV	6.3	641.7	359.3		
	6.5	635.5	365.8		

TIPO	Ø _{cable} (mm)	(alfa)		(beta)	
		L (mm)	L (mm)	L (mm)	L (mm)
LS	6.0	335.8	335.8		
	6.3	337.6	337.6		
	6.5	343.7	343.7		

- 3.6. Retardo del disparo. Se obtiene un retardo máximo de 300 ms (alfa) 400 ms (beta) desde la orden de corte de corriente hasta que la pieza del disparador se coloca en la trayectoria de los centrifugos.
- 3.7. Interfaz con el dispositivo de control.

Electroimán.

Factor de servicio: 100%

Tipo:		(alfa)	(beta)
Tensión e intensidad nominal de servicio:	V (volt)	I (A)	I (A)
	DC 24	0.26	0.46
	DC 48	0.13	0.23
	DC 190	0.05	0.10

Sensor inductivo de proximidad.

Distancia de detección: hasta 4 mm;
Sensor de 3 hilos
Voltaje operativo: 12 ÷ 24 volt (DC)



- 3.8. El dispositivo de disparo indicado en esta parte, podría ser utilizado también como dispositivo de accionamiento del sistema de preaccionamiento de parada en instalaciones con foso o huida reducidos en el sentido dado en 5.5.2 y 5.7.2 de EN 81-21:2009.
- 3.9. Aviso legal. Se incluye la capacitación del limitador de velocidad como posible actuador del elemento de parada de un sistema UCM (9.11 EN 81-1:1998+A3:2009) en este certificado de examen CE de tipo, pero la utilización como tal del dispositivo no está indicada como componente de seguridad en el anexo IV de la Directiva 95/16/CE ¹⁾, por consiguiente no será considerado examinado CE de tipo, sino examinado de tipo.

1) Referencia CEN TC 10 Doc N1017 Oct. 2010.

[UCM OG NOTES – ESP]

3. Notes on using the governor as UCM stopping element tripping device:

- 3.1. This component may be part of an UCM (Uncontrolled car movement) protection system as tripping device for the stopping element. The system designer shall take into account the following notes on respect to the distances and additional delays that have influence on the stopping distance, when providing this component.
- 3.2. The availability as stopping element tripping device in the use given by clause 9.11 of EN 81-1:1998+A3:2009, does not exclude the type examination or equivalent assessment in the scope of the standard to the complete UCM system, designed with the aim to comply with the requirements set forth on clause 9.11 by means of the necessary tests and checking.
- 3.3. In the other hand it has been recognised as an interesting fact to provide to the UCM assembly designer the characteristics and interfaces of UCM sub-systems, providing their features. This examination is done in this sense¹⁾.
- 3.4. Description of the system. Blockade of the governor is achieved by interposing a mechanical piece which position is controlled by an electromagnet, so when power supply to this electromagnet is cut off, the piece is located in the path of the governor centrifugal elements, blocking the governor rotation even at very low speed. The position of the workpiece is monitored by a proximity inductive probe with a signal that can be managed by a control system. The blocking shall be commanded by a control system not included in this component.

There are two different types: system (alpha) and system (beta).

System beta has a swinging spring included in the model allows an additional 24° rotation of the sheaves when tripped that avoids the tripping of the safety gear while loading and unloading the car.

For system (beta) the governor centrifugal elements are modified by adding a protruding edge at the rear. The purpose of this edge is diminished the equivalent maximum vertical distance, which is the distance that could raise or lower the car before an effective governor blockade. The modifications are made in both centrifugal elements of the governor except for ONLY DOWN types that only have one of them modified, and for LS type which elements are unmodified.

- 3.5. Equivalent maximum vertical distances. They are calculated for each type of STAR governor, which are: standard, BV (low speed) and LS (very low speed). Distances are valid for UP and DOWN and ONLY DOWN.

TYPE	Ø _{ROPE} (mm)	(alpha)		(beta)	
		L (mm)	L (mm)	L (mm)	L (mm)
Estándar	6.0	638.4	357.4		
BV	6.3	641.7	359.3		
	6.5	635.5	365.8		

TYPE	Ø _{ROPE} (mm)	(alpha)		(beta)	
		L (mm)	L (mm)	L (mm)	L (mm)
LS	6.0	335.8	335.8		
	6.3	337.6	337.6		
	6.5	343.7	343.7		

- 3.6. Trigger delay. There is a maximum delay of 300 ms (alpha) 400 ms (beta) from power supply is cut off until the trigger piece is located in the path of the governor centrifugal elements.

3.7. Interface with control system.

Electromagnet :

Continuous rating

Type:		(alpha)	(beta)
Rated current and voltage	V (volt)	I (A)	I (A)
	DC	24	0.26
	DC	48	0.13
	DC	190	0.05

Proximity inductive probe. Detection distance: up to 4 mm;
3 wires probe
Operative voltage: 12 + 24 volt (DC)

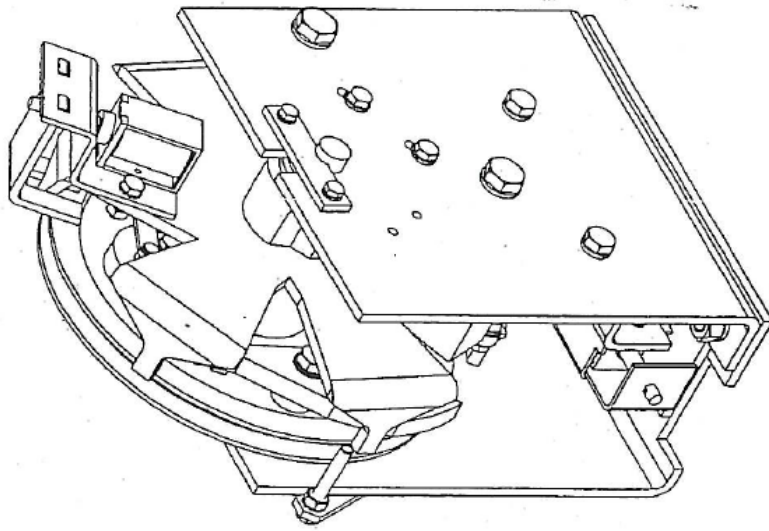
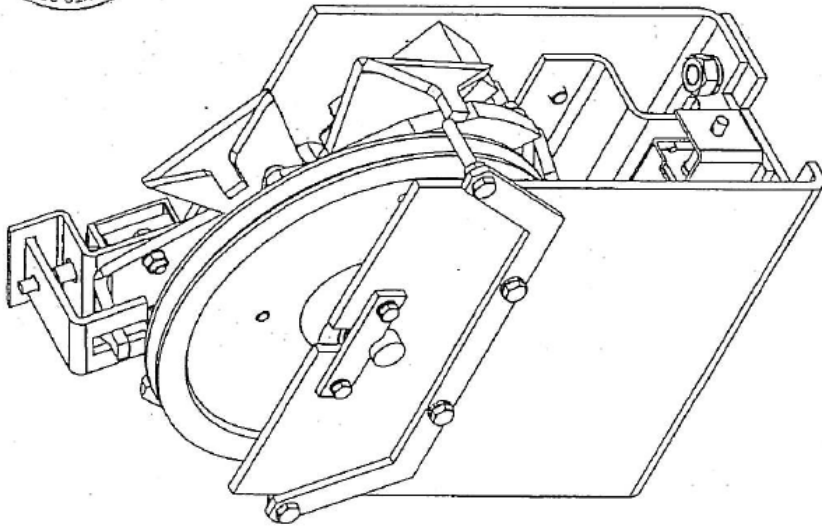
- 3.8. The triggering device shown in this part could also be used as a device to operate the pre-triggered stopping system for lifts with reduced pit or headroom clearances in the sense given in 5.5.2 and 5.7.2 of EN 81-21:2009.
- 3.9. Disclaimer. The validity of the governor as a possible stopping element tripping device for a UCM system (9.11 EN 81-1:1998+A3:2009) is included in this EC type examination certificate, but the performance as such device is not listed as safety component in annex IV of 95/16/EC Directive¹⁾, therefore this part shall not be considered EC type examined but type examined.

1) Reference: CEN TC 10 Doc N1017 Oct. 2010.

[UCM OG NOTES – ENG]

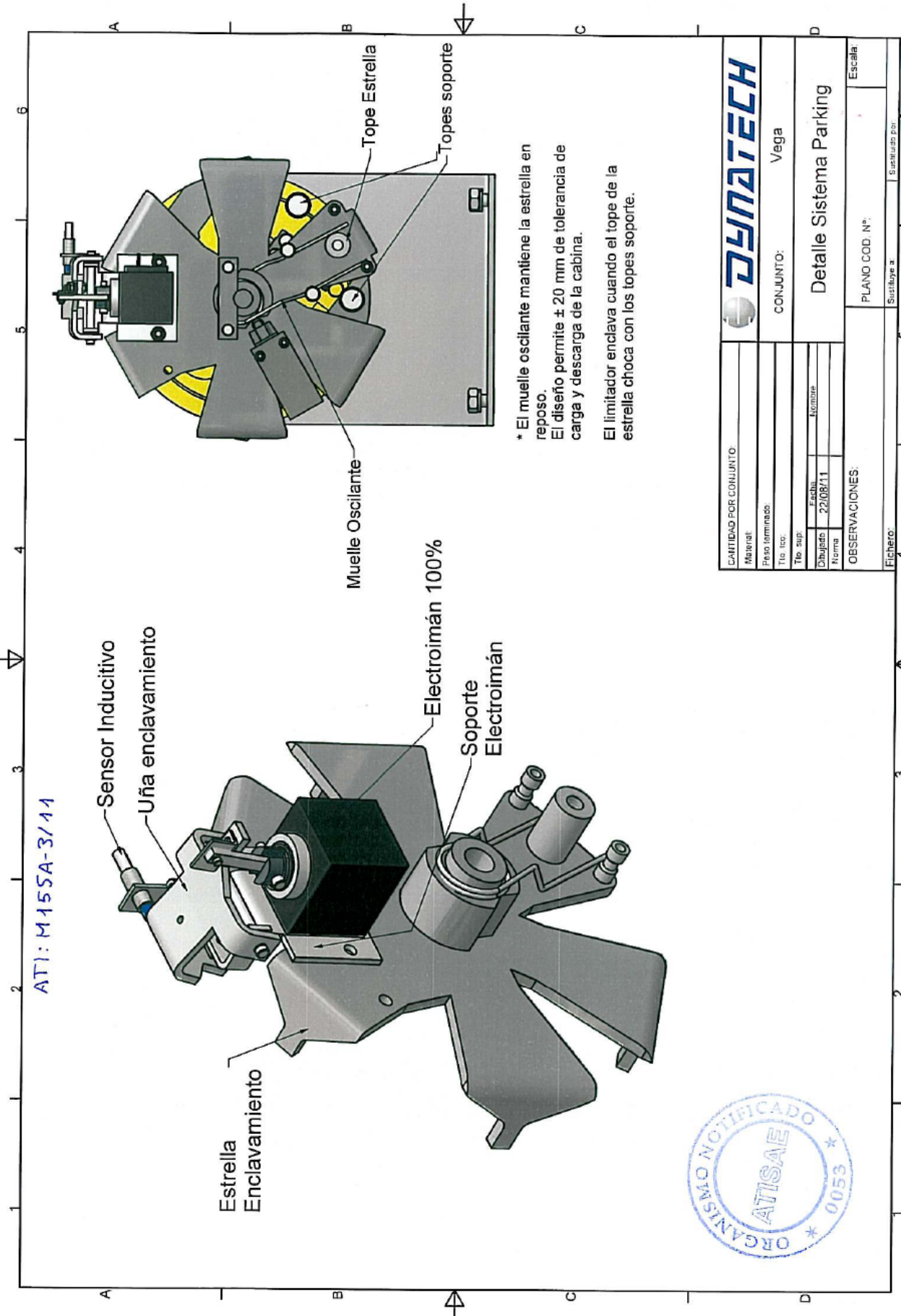


ATI: MISSA-3/11

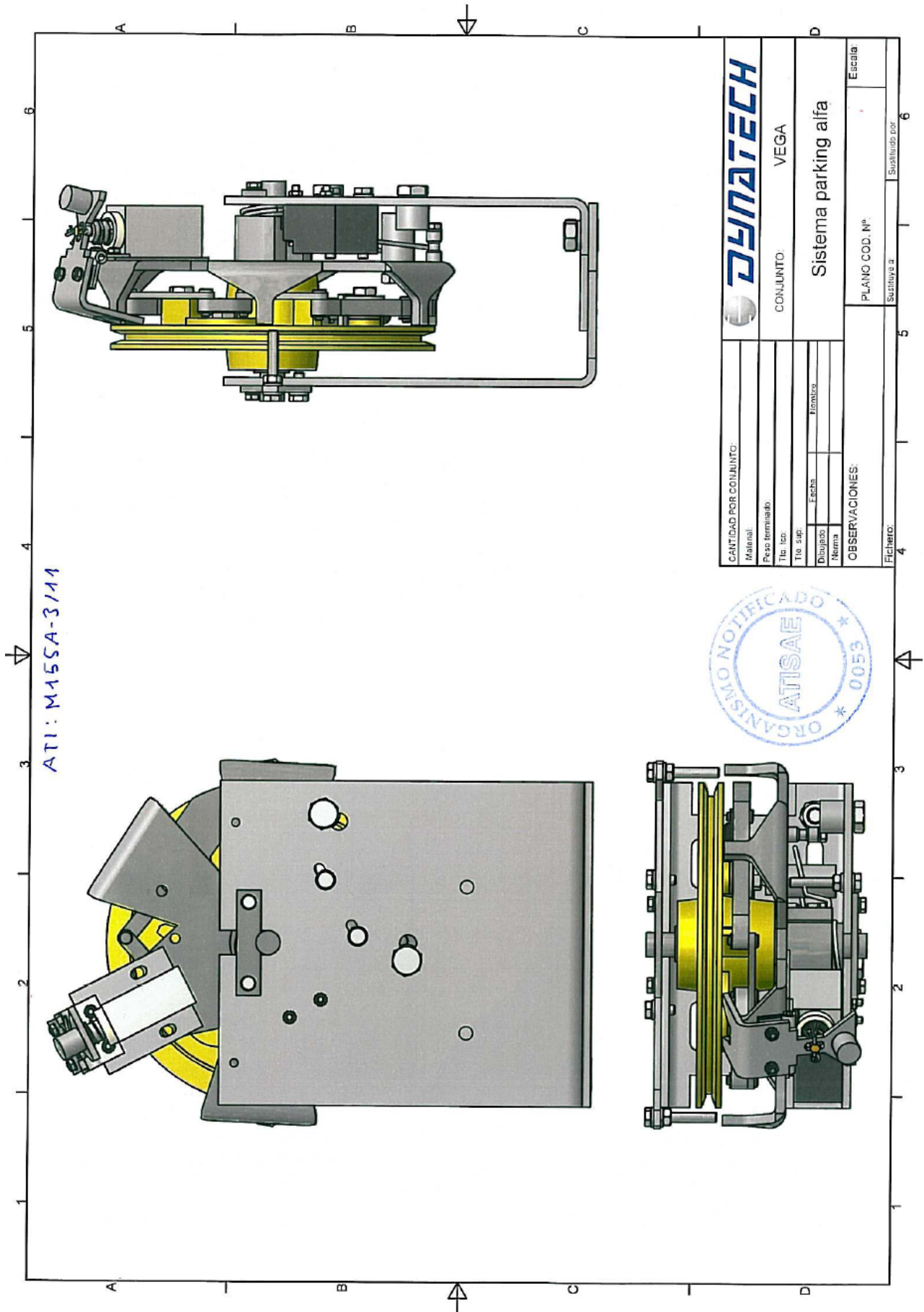


Material:		Medida base:		OBSERVACIONES:	
Peso base:		Tb. lte:		CONJUNTO: VEGA	
Peso armado:		Tb. sup:		Vega	
		Fecha:		PLANO COD. N°:	
		Dibujado: 09/12/05		DYNATECH	
		Construido:		Escala:	
		Horno:		Surtido por:	
		Fecha:		Surtido por:	
N°:		Fecha:		Surtido por:	
Modificación:		Fecha:		Surtido por:	

ATI: M155A-3/11



CANTIDAD POR CONJUNTO		DYNATECH
Material:		
Peso terminado:		CONJUNTO: Vega
Tto. iso:		
Tto. sup:		
Fecha:	Norma:	Detalle Sistema Parking
Dibujado: 22/08/11		
Norma:		
OBSERVACIONES:		PLANO COD. N°:
Fichero:		Escala:
Sustituye a:		Elaborado por:



ATI: M15SA-3/11



CANTIDAD POR CONJUNTO:		DYNATECH
Material		
Peso terminado:		CONJUNTO: VEGA
Tít. tcc:		Sistema parking alfa
Tít. sup:		
Dibujado	Fecha	
Norma	Proyecto	PLANO COD. Nº
OBSERVACIONES:		Escala
Fichero:		Sustituye a
4		5
4		6

DYNATECH, S.L.

Att.: Sr. D. Victor Navaz (I+D+i).
Pol. Ind. Pina de Ebro, sector C, P.9
50750 – PINA DE EBRO (ZARAGOZA)

Date: 2011.09.08

Ref: MD_ELV_111244.000

Issue: USING OF OVERSPEED GOVERNORS IN STOCK AS UCM STOPPING ELEMENT TRIPPING SYSTEM IN UCM.

Dear Sir:

Regarding your request made by letter dated September 8th 2011, about the possibility to use the following listed overspeed governors:

CERT No	DATE	DEVICE	TYPE
ATI/LD-VA/M109A-2/07	12.11.2007	OVERSPEED GOVERNOR	STAR
ATI/LD-VA/M155A-2/07	21.12.2007	OVERSPEED GOVERNOR	VEGA

in order to be used as trigger system for stopping elements according clause 9.11 of EN 81-1:1998+A3:2009, being at present in stock and marked with the former certificate reference to that issued this month; herewith we inform you that in fact there are not technical reasons to prevent their use as trigger of the stopping element, considering the parking system named "alpha" installed therein that trigger the governor blocking would not be different to that included in the technical file.

Should nevertheless disclose to your customers who intend to use these devices within such scope, the conditions and scope set forth in part 3 of the certificate extensions with reference:

CERT No	DATE	DEVICE	TYPE
ATI/LD-VA/M109A-3/11	06.09.2011	LIMITADOR DE VELOCIDAD	STAR
ATI/LD-VA/M155A-3/11	06.09.2011	LIMITADOR DE VELOCIDAD	VEGA

Sincerely yours.



[Signature]
José Manuel Flórez González.
Elevation Technical Director

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www.atisae.com



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EUROPEA DE ORGANISMOS DE CONTROL

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Y CONTROL INDUSTRIAL

OCA

ORGANISMO DE CONTROL
AUTORIZADO

CERTIFICADO DE EXAMEN DE TIPO TYPE EXAMINATION CERTIFICATE (AMPLIACION) / (EXTENSION)

Número de certificado. MD_EVN_130015.002
Certificate number.

Organismo emisor. Asistencia Técnica Industrial S.A.E. (ATISAE)
Certification body.
Avda. de la Industria, 51 bis
E 28760 Tres Cantos MADRID (ESPAÑA)

Clase. Tipo. Sistema de accionamiento UCM para limitador de velocidad.
Class. Type. Overspeed governor auxiliary tripping system for UCM.

Modelo. equipo asociado al limitador / related to governor:
Model. VEGA

Fabricante. DYNATECH. DYNAMICS AND TECHNOLOGY, S.L.
Manufacturer. POL. IND. PINA DE EBRO, SECTOR C, PARC 9
50750 PINA DE EBRO – ZARAGOZA - (ESPAÑA)

Propietario del certificado. DYNATECH. DYNAMICS AND TECHNOLOGY, S.L.
Certificate holder. POL. IND. PINA DE EBRO, SECTOR C, PARC 9
50750 PINA DE EBRO – ZARAGOZA - (ESPAÑA)

Fecha de la ampliación. 01.02.2013
Extension date.

Certificado que amplia. ⁽¹⁾ ATI/LD-VA/M155A-3/11 (06.09.2011)
Extended certificate.

Motivo de la ampliación. Revisión de tiempos de retardo / Updating of delays
Extension aim.

Normas de referencia. EN 81-1:1998 + A3:2009
Reference's standard

Informe. MD_EVN_130015 (01.02.2013)
Report.

Fecha límite de validez. INDEFINIDO / undefined
Validity date.

Declaración: El componente "sistema de accionamiento UCM para limitador de velocidad" evaluado forma parte de un sistema más amplio que debe dotar de protección UCM (art 9.11 de EN 81-1). Las condiciones y conclusiones relativas a este sistema se encuentran indicadas en el apartado 3 de los citados certificados de examen CE de tipo.

(1) Por razones legales, al no tratarse de un componente de seguridad definido en la Directiva 95/16/CE, este organismo no puede emitir un certificado de examen CE de tipo, no obstante y por razones prácticas no se emitió un certificado propio para el sistema, sino que se incluyó como parte en el certificado de examen CE de tipo de los limitadores de velocidad indicados señalando esta circunstancia en el punto 3.6, al tratarse de dispositivos de dedicación exclusiva para los limitadores certificados.

statement: The assessed component "auxiliary UCM tripping system for overspeed governor, may be part of a system that provides full UCM protection (p. 9.11 EN 81-1). The conditions and results of this system are those of section 3 of the mentioned EC type examination certificates.

(1) For legal reasons, being not this component a safety component as listed in 95/16/EC Directive, this body cannot issue a EC type examination certificate. Nevertheless and due for practical reasons a particular certificate for the system was not issued but included as part of the EC type examination certificate for the overspeed governors, being this circumstance warned in paragraph 3.6, provided that it is a device intended for exclusive use on the certified governors



José Manuel Flórez González
Director Técnico de Elevación

Esta ampliación consta de esta portada y un anexo técnico de 1 hoja. Esta ampliación debe utilizarse conjuntamente con el certificado de examen CE de tipo indicado. Su reproducción carece de validez si no se realiza totalmente.

This extension consists of this cover and a technical annex of one page. This extension must be used in connection with the aforementioned EC type examination certificate. Only fully reproduction of this certificate is considered to be valid.

**ANEXO TECNICO AL CERTIFICADO DE EXAMEN DE TIPO: MD_EVN_130015.002
TECHNICAL ANNEX TO THE TYPE EXAMINATION CERTIFICATE (ABOVE)**

1. ALCANCE

El objeto de este certificado es modificar el valor de retardo señalado en el punto 3.6 del citado certificado de examen CE de tipo para el limitador VEGA, del sistema de accionamiento denominado "beta".

El tiempo señalado en el certificado, al no disponer de una precisión adecuada en su medida, fueron sobrevalorados con objeto de asegurar un valor no peligroso al tomarlo en consideración para cálculos de la distancia de parada.

Se han realizado nuevas medidas que permiten determinar un nuevo retardo, válido para las distintas ejecuciones de bobinas (según su alimentación), de:

100 ms

Este valor sustituye, al estimado en el certificado de examen CE de tipo (punto 3.6) para el sistema denominado "beta".

1. SCOPE

The aim of this certificate is to modify the delay shown in paragraph 3.6 of the mentioned EC type examination certificate for overspeed governor type VEGA, regarding the tripping auxiliary system named "beta".

The delay shown in the certificate was, in the absence of adequate precision in its measurement, overvalued in order to assure it was not dangerous when taken for calculate the stopping distance.

New measures have been taken that make possible set a new delay, valid for the different coil supply voltage choices, of.

100 ms

This value, substitutes that estimated in the EC type examination certificate (paragraph 3.6) for the so-called "beta" system.



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1 INTRODUCTION.

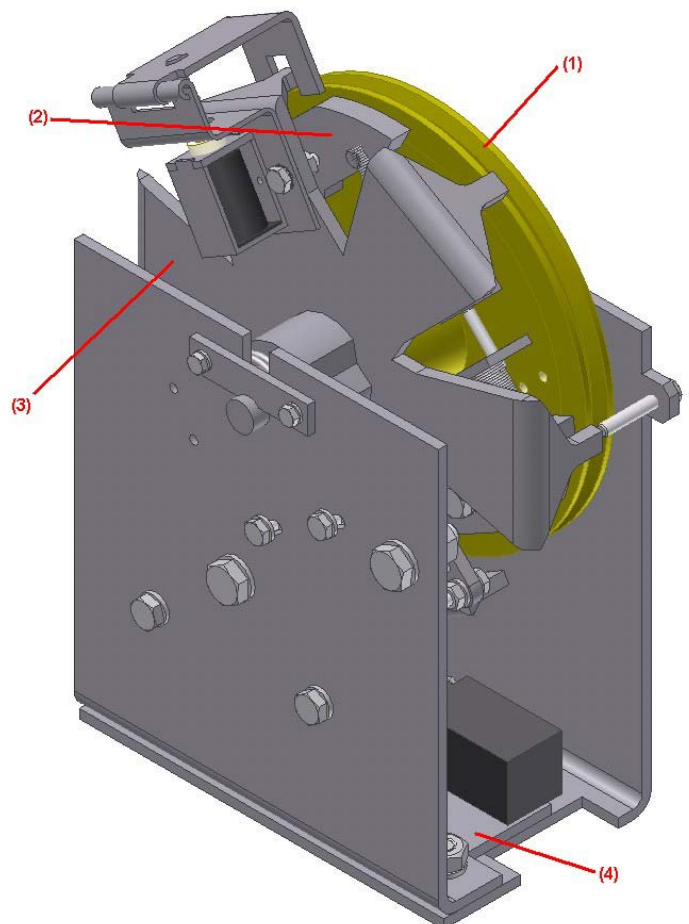
The DYNATECH VEGA overspeed governor is designed to cut off the current of the security series line in the event of car overspeed, bringing the lift to a standstill when necessary.

The VEGA overspeed governor covers a wide range of speeds and can be used with instant and progressive safety gears.

2 MAIN COMPONENTS.

Each governor is composed of the following main elements: a pulley, a centrifugal system, a locking device, a casing and a plate to link the governor to the floor in the machine room.

The following picture shows an image of the governor assembly:



Where:

- (1) – Main pulley.
- (2) – Centrifugal system.
- (3) – Locking system.
- (4) – Floor fixing plate.

3 WORKING PRINCIPLES.

The governor is of the centrifugal type and is able to work either **upwards** or **downwards**.

The governor is fixed directly to the floor in the machine room or in the upper part of the well, joined by the rope to its tensing pulley located in the pit.

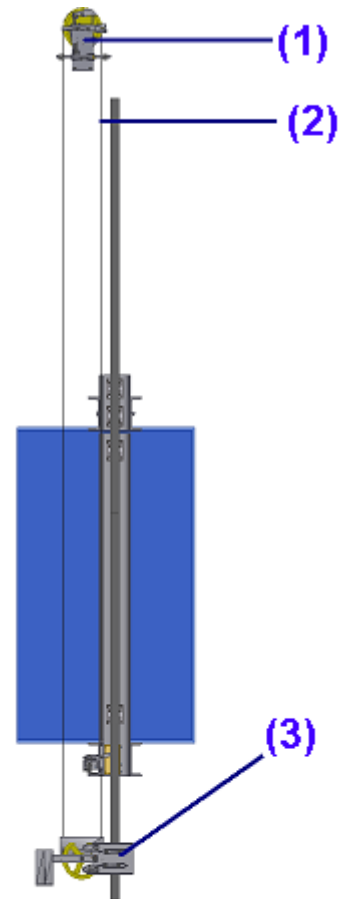
This tensing pulley is attached to the guide pulley by flanges.

The rope passes through the groove of the governor and the tensing pulley.

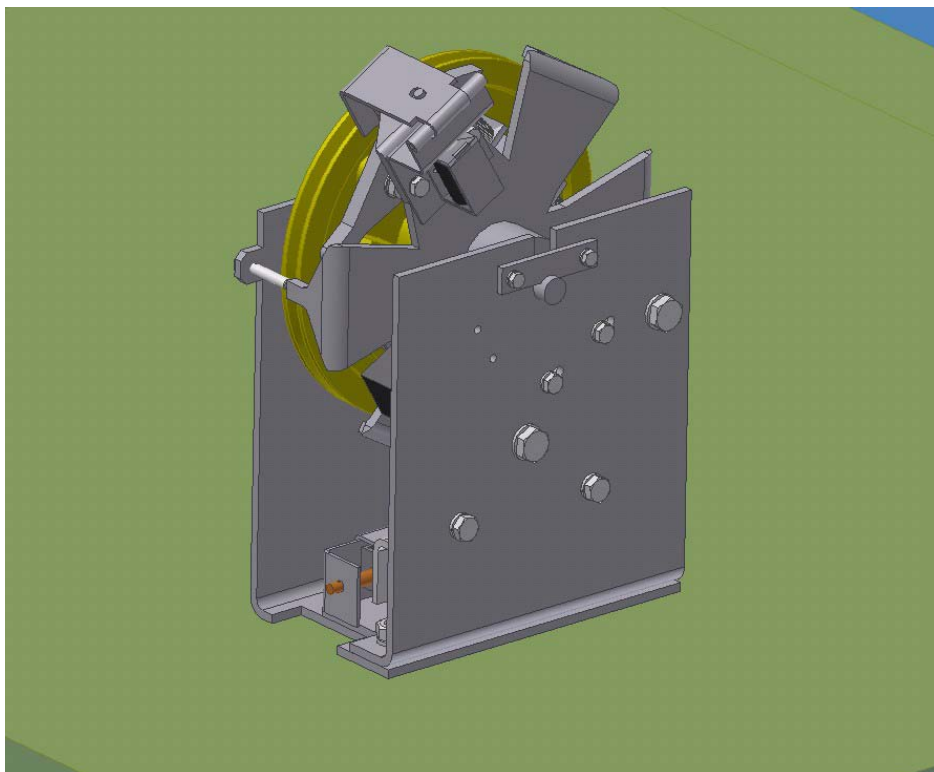
The ends of the rope are attached to the linkage anchoring. Thus, when the car reaches its tripping speed, the rope-governor relative movement will lock it.

The working diagram is as follows:

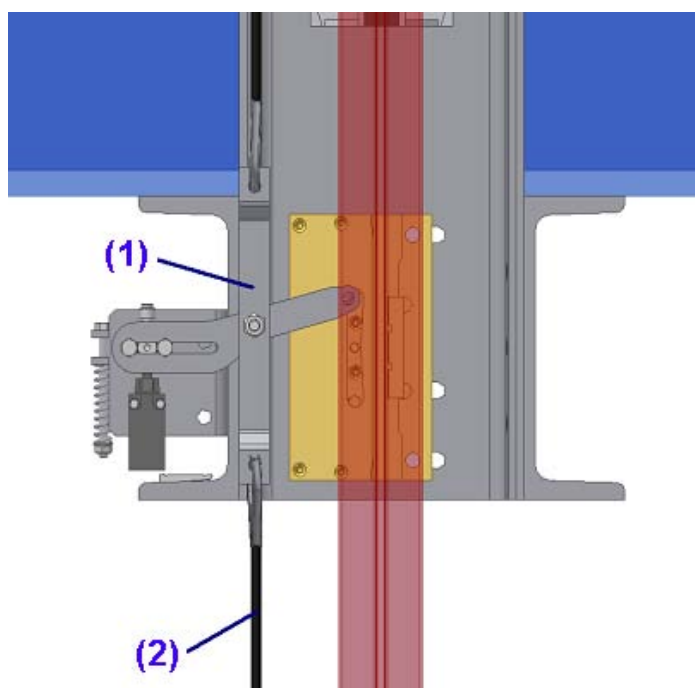
- (4) VEGA governor
- (5) Governor rope
- (6) Tension weight



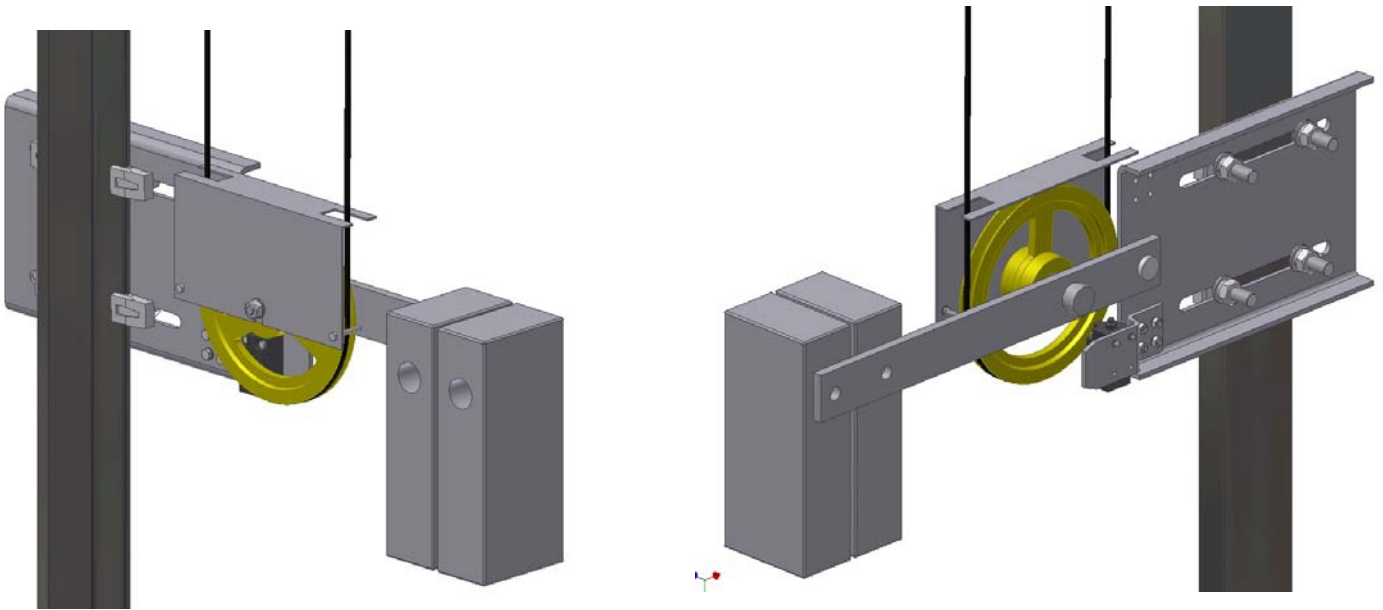
As it was indicated above, the governor is secured to the floor in the machine room or to the well.



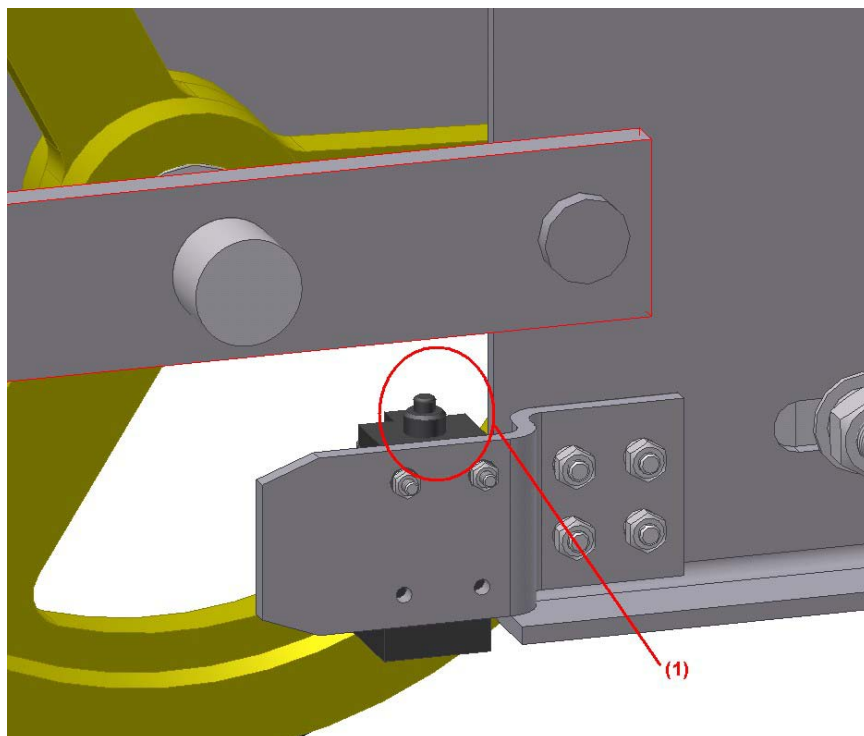
The ends of the rope (2) are attached to the linkage anchoring (1) through eyes.



The tension weight is secured to the guide rail by flanges.

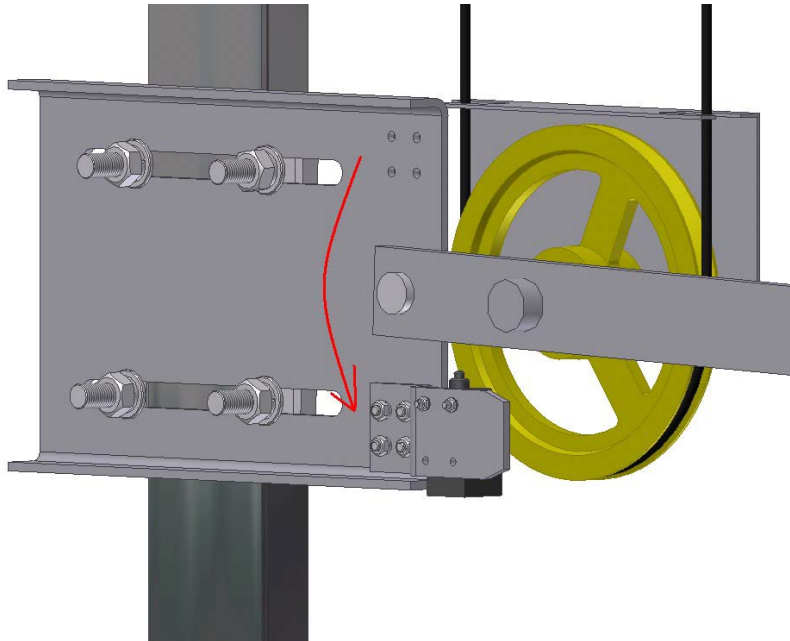


The rope must have enough tension (500 N on each side). In the event of tension loosening a rope slackening contact (1) connected to the installation security series will cut off the current.

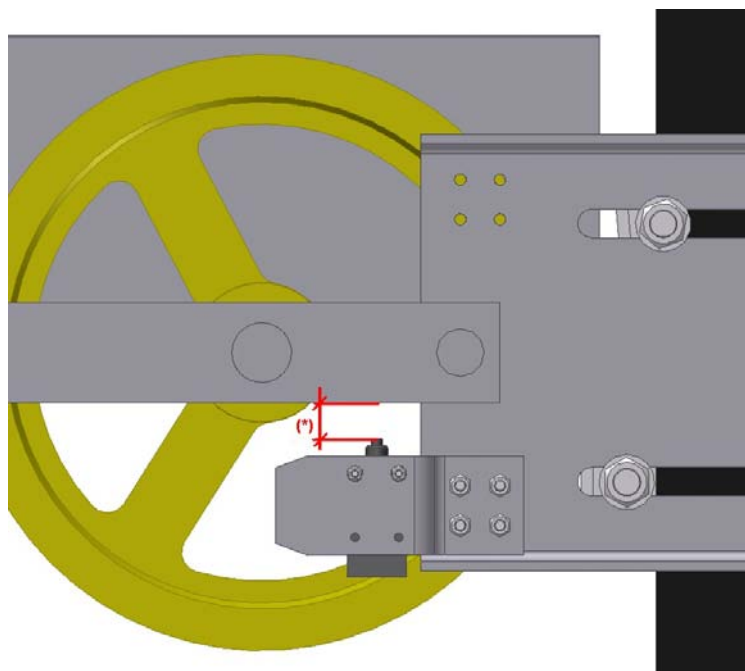


Due to the weight of the masses, the contact is protected from knocks by the part to which it is attached, therefore, the sensor cannot be damaged.

The tension weight assembly can be attached to both sides of the guide rail. The guide rail fixing plate has holes on both sides, so that the contact is not a problem when changing the position of the assembly and so that the sensor can be attached on both sides.



The loosening margin (*) is shown in the figure below:

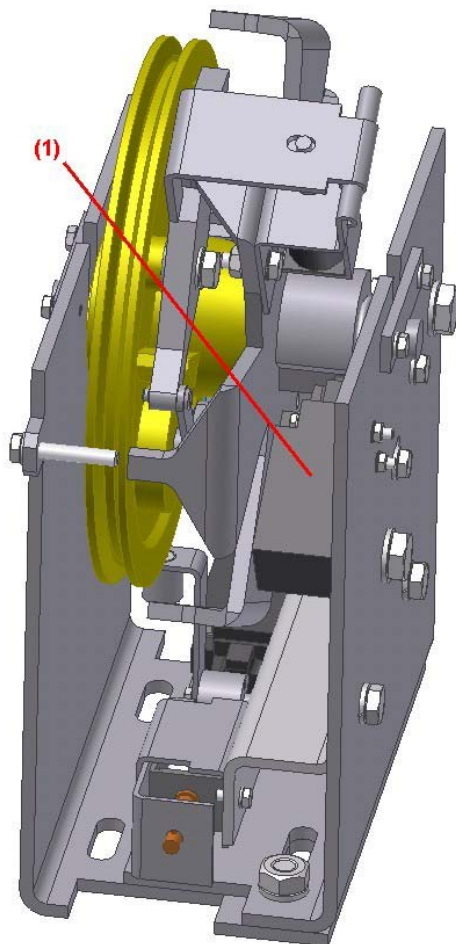


As indicated, if the tightness would be less than acceptable, the bar supporting the weight and the pulley would make contact with the sensor.

3.1 OVERSPEED CONTACT.

The governor has a built-in overspeed contact.

According to the European Standard UNE-EN 81, at the 9.9.11.1 section, the current cut off by means of the overspeed governor contact is mentioned. In this section is specified that for rated speeds of no more than 1 m/s, the overspeed contact can be triggered when the governor locks.



Therefore, the governors, whose rating speed is 1 m/s or lower, will be provided with an overspeed switch that is triggered at the same time as the governor locks.

In the left picture the contact situation is shown (1).

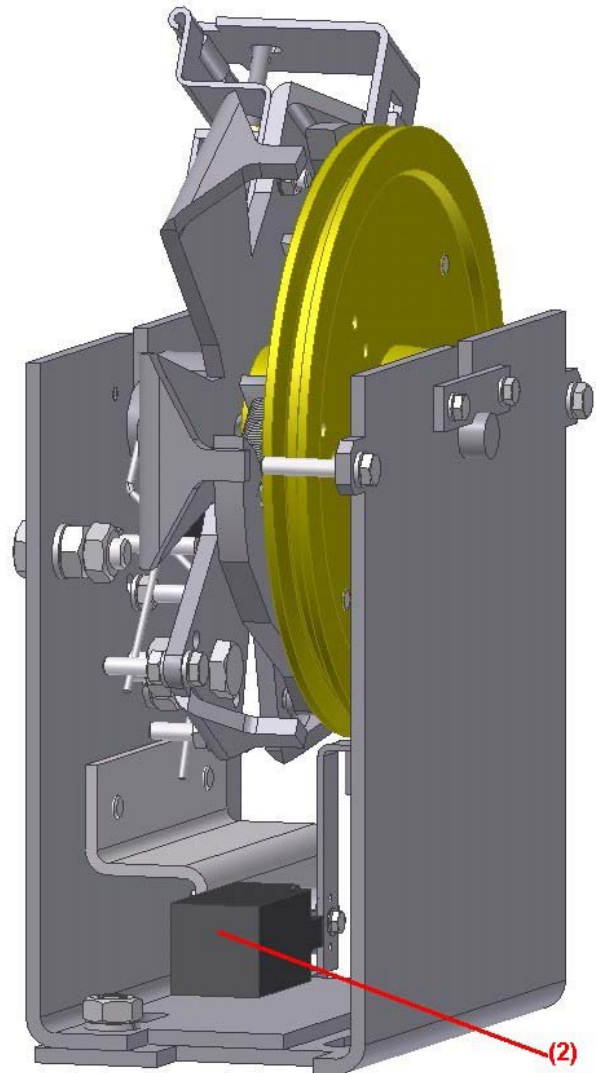
The contact will act when the governor reaches a speed above the rated speed and a moment before the governor actuates.

When this contact is triggered, the current of the security series is cut off. This system has a remote reset.

For rated speeds above 1 m/s, the overspeed switch must be triggered at a speed above the rated speed, but below the tripping speed of the governor.

The contact (2) is shown in the right picture.

This system has a manually reset. If the governor acts on this contact, the current of the security circuit will not circulate until this contact is manually returned to its initial position



Remark: For installations in the well or similar, an automatic reset for this contact is possible. See afterwards

3.2 REMOTE TRIPPING MECHANISM (OPTIONAL)

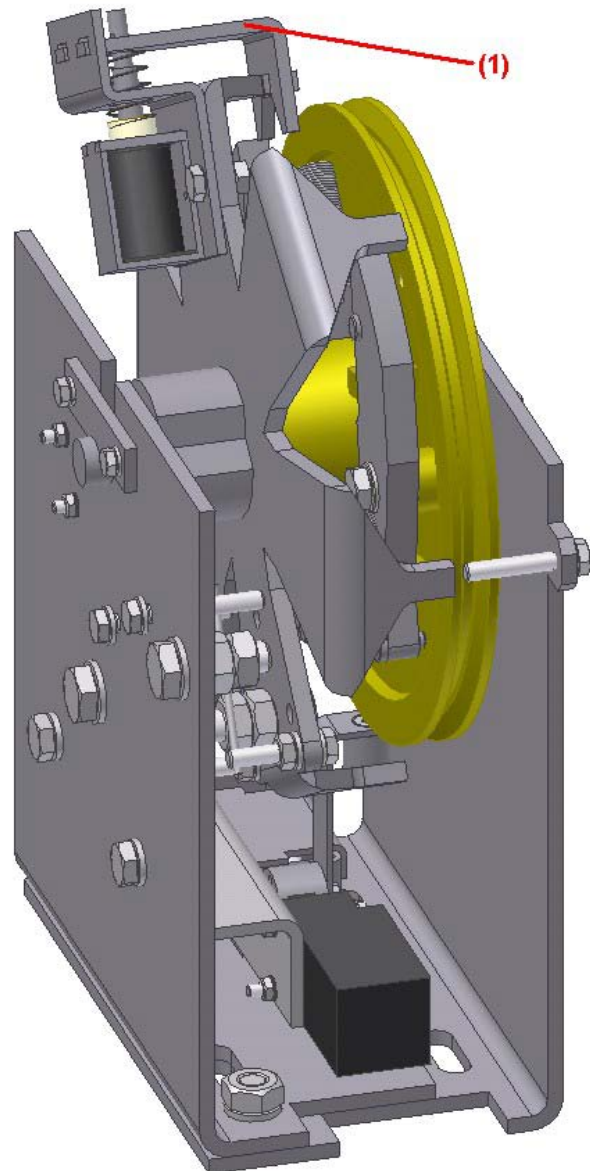
The governor can have a built-in remote tripping mechanism to check the correct interlocking of the governor and the subsequent safety gear wedging.

Basically, it consists of a remote interlocking electromagnetic system, which can be driven from the engine room. In order to help during the installation, three versions of the system are available:

- Solenoid fed by **24 V DC** (direct current). A current of **1,1 A** must be provided.
- Solenoid fed by **48 V DC** (direct current). A current of **0,75 A** must be provided.
- Solenoid fed by **190 V DC** (direct current). A current of **0.2 A** must be provided.

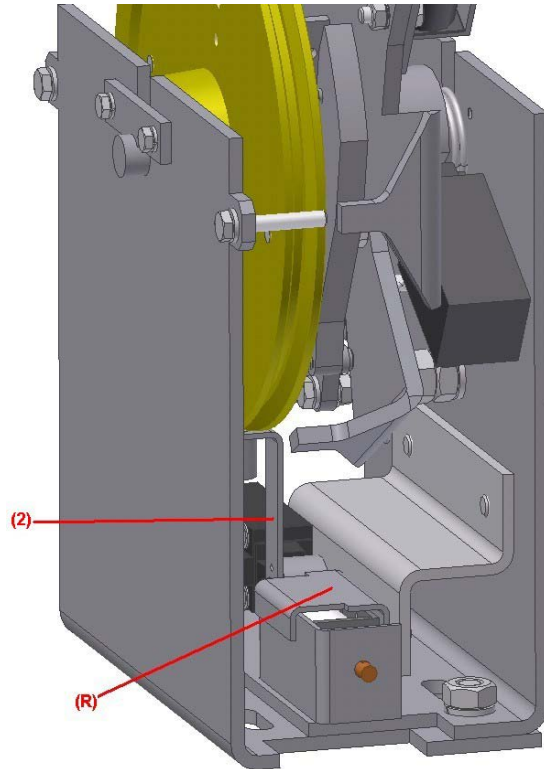
Remark: Anyway, just a few seconds are necessary to engage the governor. After the activation, the current that feeds the solenoid must be switched off to avoid its overheating. In that way, a button is recommended to activate the system.

Some images of it, as well as its position in the set, are shown in the next picture (1).



3.3 REMOTE RESET DEVICE (OPTIONAL)

The governor has the option of a remote reset (R) of the overspeed contact (2). For this device, a solenoid of 24, 8 or 190 V with a current of 1.1, 0.7 and 0.2 A, respectively, is used.



3.4 UNCONTROLLED MOVEMENT UCM DEVICE

As a result of application of the new lift standard EN-81-1:1998+ A3, the Vega governor is fitted with a system that can be used to prevent uncontrolled car movement (UCM).

This system is called the Parking System.

The parking system consists of a unit formed by a pin that makes the centrifugal system lock when it is in its standby position.

The system is fitted with an electric magnet that withdraws the pin whenever the car is moving to prevent the pin from locking when the governor is moving-

Thanks to this electric magnet and a mechanism that consists of a shaft and a hinge, it is possible to lock or unlock the governor.

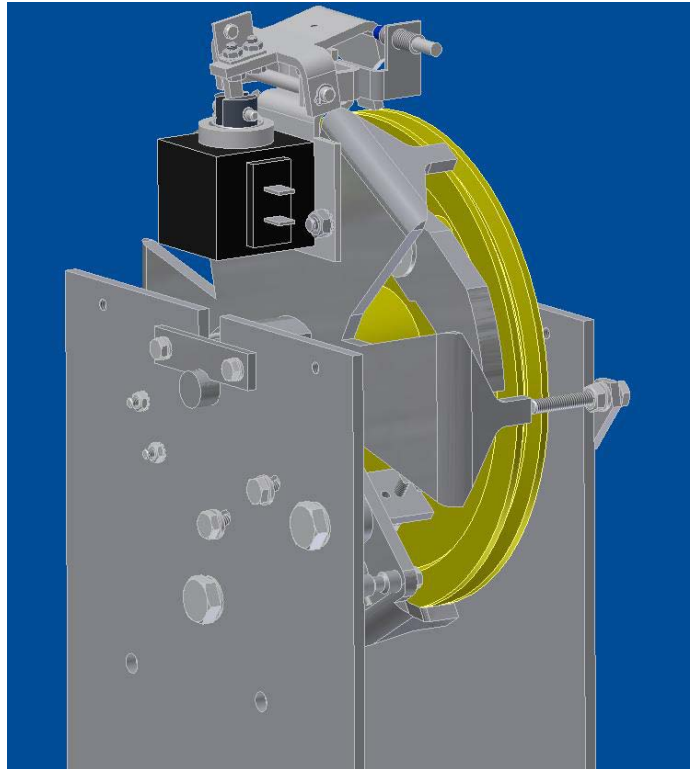
The system works on positive safety (it is a proactive device). This means that the system will always lock the governor in the event of a cut in the electricity supply.

The coil installed is an electric magnet that can be 24 V, 48 V or 190 V (all voltages in dc), depending on customer requirements.

The operating factor is 100 % in all voltages.

When the current to the coil is cut, the pin returns to its standby position thanks to a compression spring fitted in the shaft. The pins therefore remain in the governor locking position.

The figure shows a Vega speed governor fitted with the parking system.

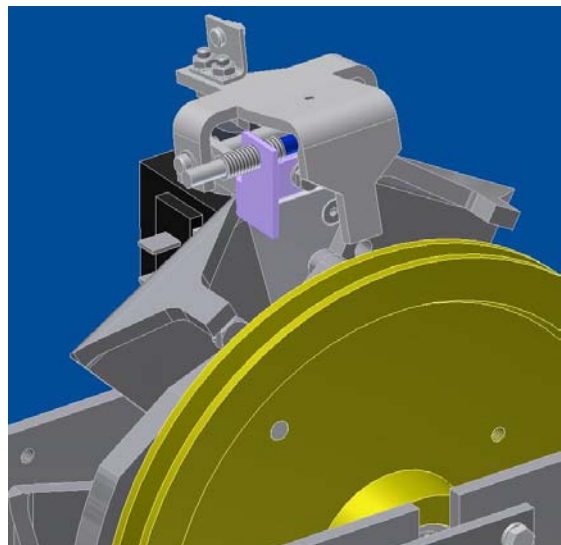


3.4.1 PARKING SYSTEM CONTROL SENSOR:

As can be seen in the figure above, the parking system is fitted with a control sensor.

This device is an inductive proximity sensor. The job of this sensor is to monitor the system so that if the parking system does not unlock the governor due to a mechanical or electrical fault, the car will not start moving.

This avoids any problems that may arise due to the undesired activation of safety parts.



3.4.2 THE PARKING SYSTEM FOR UCM.

According to Standard EN-81-1:1998+ A3, the car must be stopped within certain margins in light of an uncontrolled movement.

The governor in itself is unable to meet requirements. Apart from the governor, safety gear is required and the fitter must therefore perform the appropriate tests to ensure the points of the standard are met.

Please see the website and download the manuals for safety gear specifications for the UCM.

In the event of uncontrolled car movement, the governor and the parking system will transmit the force to the safety gear in order to stop the car.

Dynatech currently offers 2 types of parking system.

These systems are described below:

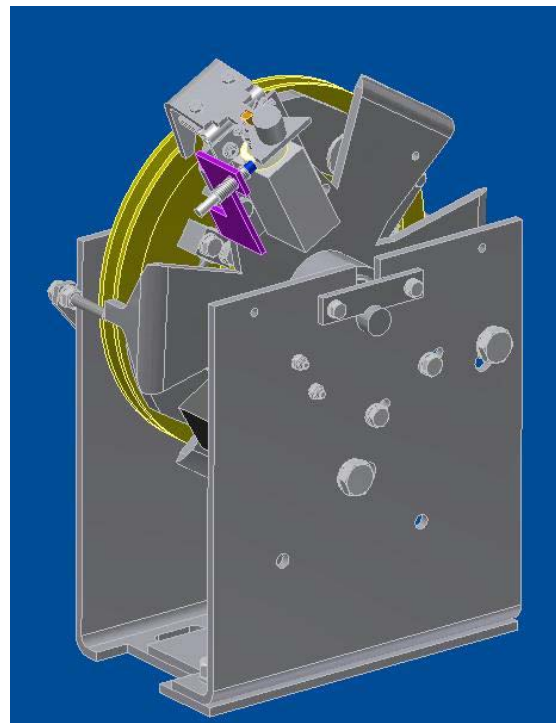
- ALFA PARKING SYSTEM

This system has been sold until now by Dynatech. It is certified under EN-81:A3.

The maximum governor locking distances for the different cables are:

Cable Ø=6	638.4
Cable Ø=6.3	641.7
Cable Ø=6.5	635.5

The response distance of the linkage and the safety gear must be added to this distance.



The sum of all the distances must be within the margin established in the standard.

The distance of the governor may be shorter than that indicated, depending on the position of the locking part in the centrifugal system.

Note: The Alfa parking system can be adapted to existing governors with no parking system. Customers can fit the Alfa parking system themselves.

- **BETA PARKING SYSTEM**

This system replaces the Alfa parking system.

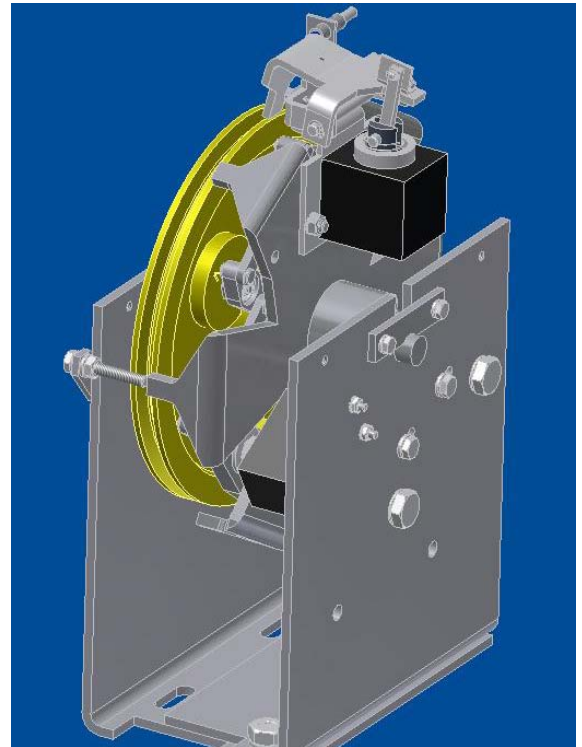
It is certified under EN-81:A3.

The main advantages in comparison with the Alfa parking system are:

- Shorter response distance
- Mechanism that avoids auto-engagement.

The maximum governor locking distances for the different types of cable are:

Cable Ø=6	357.4
Cable Ø=6.3	359.3
Cable Ø=6.5	365.8



The response distance of the linkage and the safety gear must be added to this distance. The sum of all the distances must be within the margin established in the standard.

The distance of the governor may be shorter than that indicated, depending on the position of the locking part in the centrifugal system.

The parking device is fitted with a mechanism that provides a tolerance of ± 20 mm in terms of car loading and unloading.

Occasionally, the centrifugal system of the governor pulley could stop right next to the parking system locking pin (in standby) at one of the lift stops. This mechanism would avoid any engagement due to a difference in level of the car in both directions.

According to Point 9.11.7 of the Standard, uncontrolled movement must be detected by a switch. However, detecting uncontrolled movement using the Dynatech design is pointless, as the parking device remains activated when the car is at a standstill. (except in installations with door pre-opening and re-levelling).

In relation to Section 9.11.9. that indicates that once the means have completed their job they must be reset or released by skilled personnel. The fitter can touch the speed governor contact, as this contact is activated whenever the governor starts to run.

3.4.3 WARNINGS

- In the event of a cut in the electricity supply to the electric magnet coil when the car is moving, the speed governor will lock and the safety gear subsequently engaged.
The installation of an autonomous power system is recommended to avoid undesired engagement in the event of a cut in the mains electricity supply.
- Open the pin to enable the speed governor to turn for manual rescue. If the pin is not released, the governor will lock and the safety gear will engage during the rescue movement.
- Open the pin to enable the speed governor to turn for automatic rescue. If the pin is not released, the governor will lock and the safety gear will engage during the rescue movement.

- Use in installations with re-levelling over 20 mm: in installations with re-levelling over 20 mm, certified switching must be used to activate the electric magnet during the re-levelling process because if it re-levels by more than 20 mm then the governor could lock and the safety gear engage. In this case, the switching must discriminate between re-levelling and an uncontrolled movement.
- Use in installations with door pre-opening: in installations with door pre-opening, certified switching must be used to ensure the electric magnet remains activated during the pre-opening process because if the electric magnet does not remain activated then the governor could lock and the safety gear engage. In this case, the switching must discriminate between pre-opening and an uncontrolled movement.

3.4.4 THE PARKING SYSTEM AS REMOTE CONTROL.

The parking system can be used as remote control.

Operations are the opposite to those of the parking system, as it unlocks the governor when the lift is running under normal conditions.

The purpose of the remote control system is to lock the governor when the lift is moving. This takes place during engagement tests. On locking the governor, the safety gear is forced to operate.

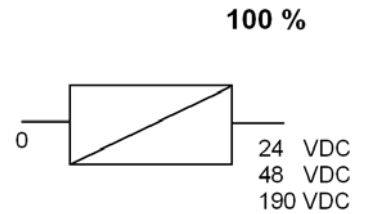
To do so, a button must be installed on the control panel that disconnects the current to the parking system coil.

As indicated above, the parking system unlocks the governor by powering the solenoid valve in this system. If the governor is to be locked while the car is operating normally, this solenoid valve must be disconnected so that the parking system locks the governor.

3.4.5 TECHNICAL SPECIFICATIONS

- Electric magnet: Coil with 100% operating factor

Voltage (V)	I (Alfa p.s.) (A)	I (Beta p.s.) (A)
24 DC	0.26	0.46
48 DC	0.13	0.23
190 DC	0.05	0.10



- Inductive Sensor (for both p.s.):

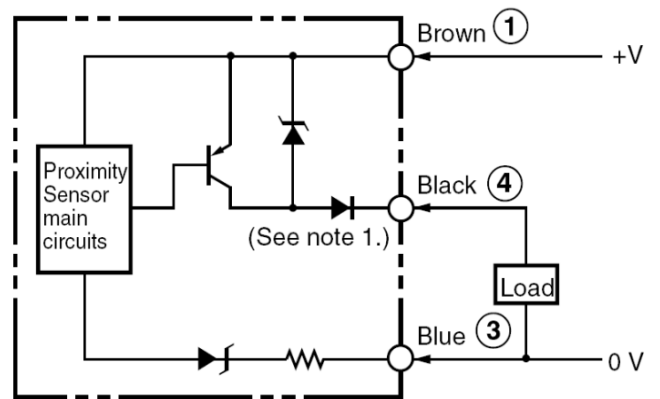
OMRON E2AS08KN04WPB12M M8

inductive proximity sensor

Detection distance of up to 4 mm.

3-wire outlet.

Operates at 12 – 24 V DC



- Maximum response distance:

	Alfa Parking System	Beta Parking System
Cable Ø=6	638.4	357.4
Cable Ø=6.3	641.7	359.3
Cable Ø=6.5	635.5	365.8

- Mechanism that allows for ± 20 mm movement on loading and unloading in Beta p.s.

[Key to diagram:

- Main proximity sensor circuits*
 - Load*
- Brown ①
Black ④
Blue ③]

3.5 VEGA LS OVERSPEED GOVERNOR

There is a low speed VEGA governor called VEGA LS.

The minimum performance speed is 0.40 m/s

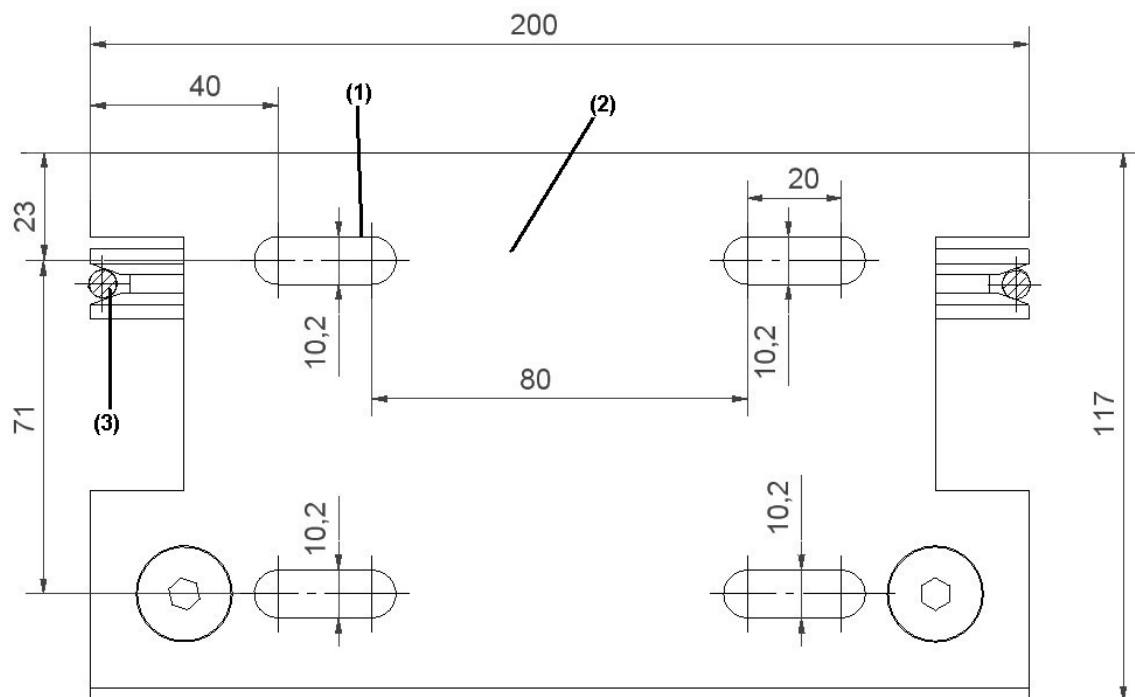
This governor is DOWNWARDS ACTING ONLY and the performance speed range is:

0.40 – 0.70 m/s

IMPORTANT NOTE: Customers asking for a VEGA LS, may know that it's unidireccional. In order to know the right way, it must pay attention to to the arrow in the governor.

4 FIXING TO THE FLOOR.

The figure shows the governor anchoring points to the lift floor. Distances appear in millimeters.



The above figure represents the bottom view of the governor base plate (2). The governor is anchored to the floor using the threaded holes (1) in the

plate. The rope (3) and its position with respect to the base plate can also be seen in the drawing.

5 TECHNICAL FEATURES.

- **Machine:** Overspeed governor
- **Model:** VEGA
- **Manufacturing company:**
DYNATECH, DYNAMICS & TECHNOLOGY, S.L.
- **Range of use:**
Maximum rated speed: 2.40 m/s
Maximum tripping speed: 3 m/s
Minimum rated speed: 0.1 m/s
Minimum tripping speed:
 - From **0.4 to 0.7 m/s** , the governor is **UNIDIRECTIONAL**

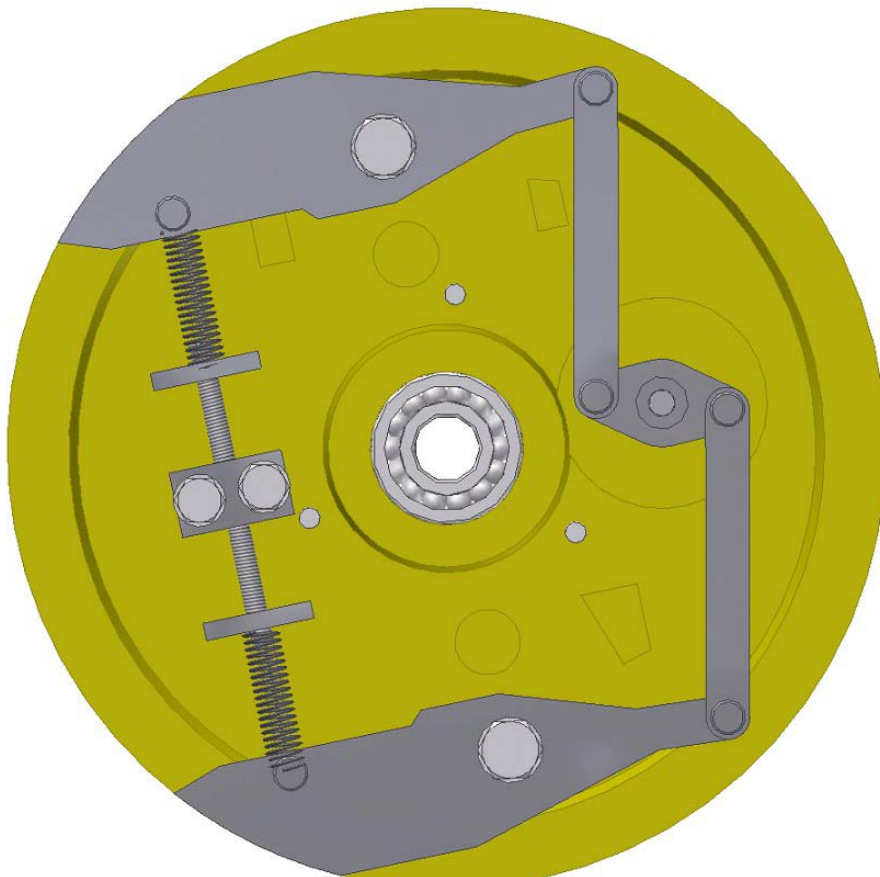
 - From **0.7 to 2.87 m/s** the governor is **BIDIRECTIONAL**
- **Rope:**
Diameter: 6 mm, 6.3 mm, 6.5 mm.
Composition: 6 x 19 + 1
- **Rope pre-tightness:**
500 N
This tightness is achieved by positioning the tension weight so that the bar is horizontal.
- **Tightness produced on the rope during interlocking:**
Greater than 300 N
- **Pulley diameter:** 200 mm
- **Overspeed contact.**
- **Other features:**
 - It is possible to install several devices:
 - Remote tripping system
 - Remote reset
 - Parking System

- It can be unidirectional or bidirectional
- An encoder can be assembled (VEGA PLUS)
- **Safety gears with which it may be used:**
 - All safety gears with a tripping speed that can be reached by the overspeed governor.

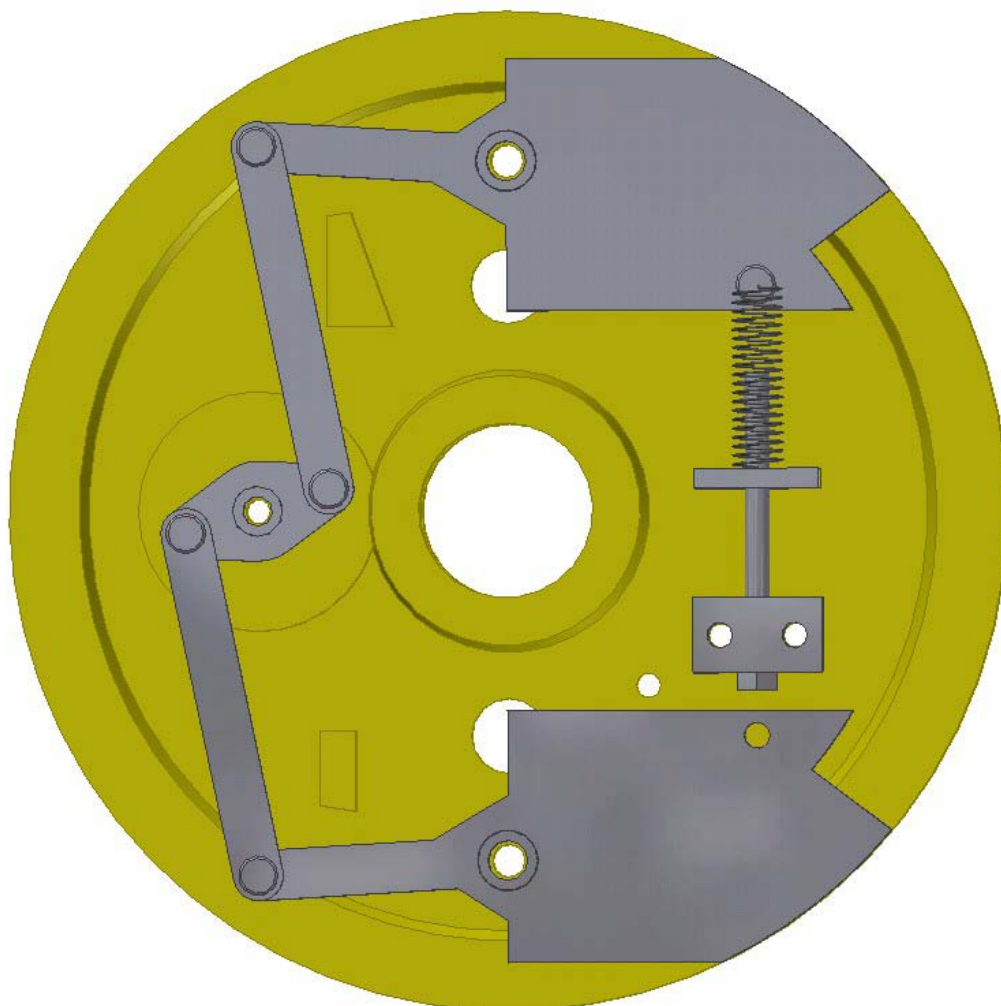
6 TYPE OF ADJUSTMENT.

Tripping speed adjusting is carried out by means of a regulating screw which tenses or detenses the centrifugal system spring. When tensing the spring, the speed required to drive the centrifugal system will be higher. In this way, the tripping speed can be adjusted within the speed range.

The adjustment is carried out in the factory by means of a computerized gauging system according to the customer specifications. Once the adjustment is finished and checked, it is sealed so that it can not be modified..



For tripping speeds lower than 1 m/s, a low speed system is installed, where, as it is shown in the picture, the adjustment is made by means of a tensing screw that lengthen or shrinks the spring that is hooked to the centrifugal system.



7 INSTRUCTIONS OF USE AND MAINTENANCE.

The tripping speed of the installation can be checked by means of the motor frequency changer, by progressively increasing the motor speed until interlocking is obtained.

To avoid unnecessary risks that may cause the governor to operate incorrectly, two basic criteria must be taken into account: cleaning and checking for corrosion. There are moving parts in each governor that carry out the interlocking action. The dirt accumulation on these parts may cause malfunctioning. The installer and the maintenance staff must ensure that these parts are perfectly clean.

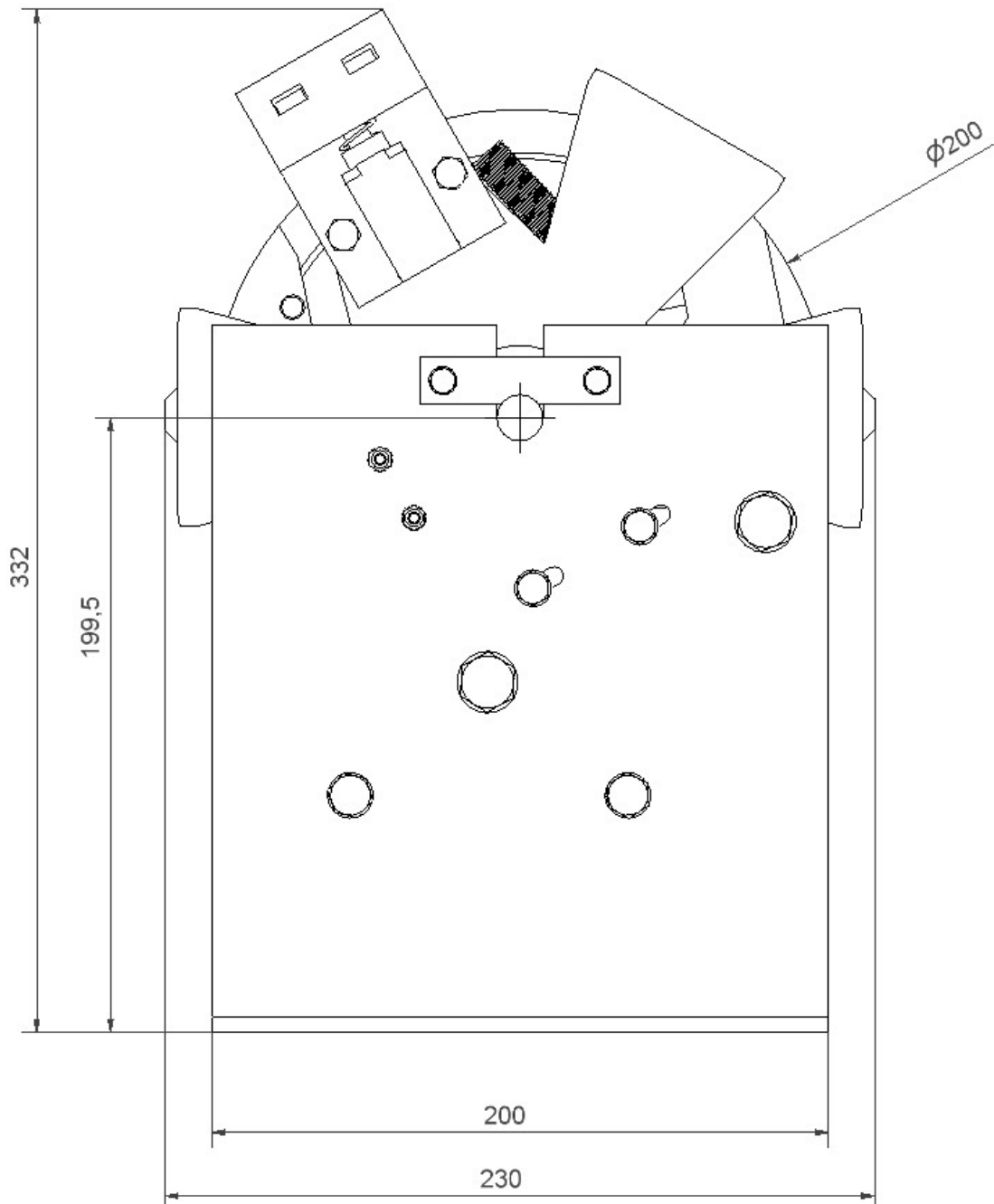
Moreover, all Dynatech governors have rustproof protection, but it is important that the maintenance staff checks the installation to look for any corrosion that may affect any moving part of the elements and that may prevent its natural movement. This check will be carried out by means of a visual inspection of the surfaces conditions and by making the parts move. The frequency of these checks is at the discretion of the maintenance staff, although they should be more frequent in the event of an installation in a particularly corrosive environment.

Dynatech will not be held responsible for any problem or accident caused by not observing the indications and advices described both in these instructions and in the EC Type examination certificate.

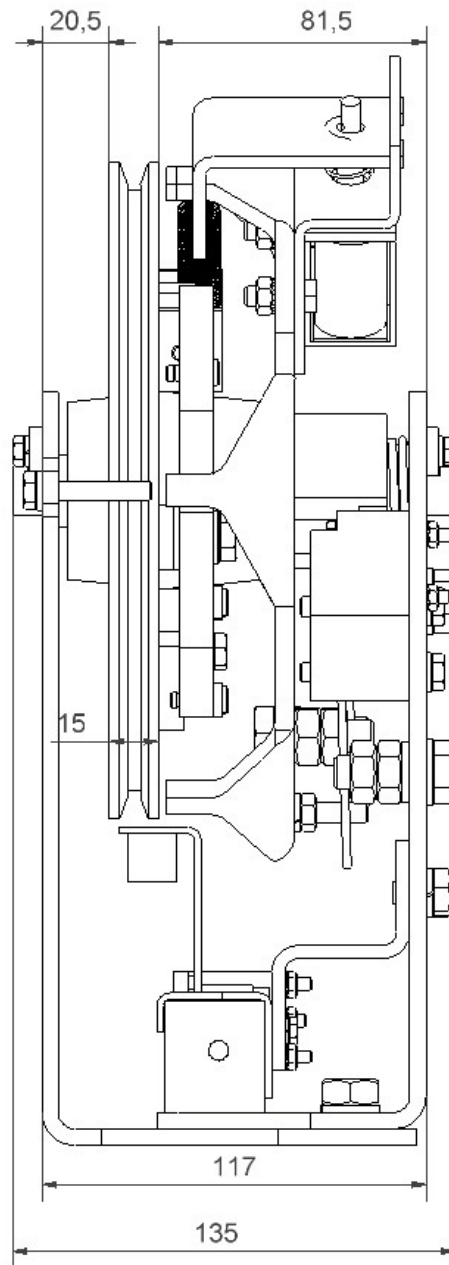
8 INSTALLATION DRAWINGS.

The following drawings may be of help when adapting and installing the VEGA overspeed governor:

Front view:



Side view:



Bottom view:

