

509.

Moser's Rides tower/spring rides bulletins

A NAFLIC inspection body has recently requested a full set of service and other bulletins from Moser's Rides in Italy relating to that company's tower/spring rides.

We are aware that those items received do not make up a full set of bulletins on these attractions and one or two have been sent before, but the Standards Committee believes the information contained within these documents is worthy of a technical bulletin to provide the information to members. The bulletins in question can be found in the following pages.

The information contained within is that of the manufacturer and not NAFLIC. When following the advice from the manufacturer, you are reminded of your duties and responsibilities under HSG175 regarding modifications.

1. OPERATIONS AND CONTROLS TO BE CARRIED OUT AT LOCATION TRANSITION



ATTENTION: When removing the ride from the existing location, refer to instructions as provided in the original operation and maintenance manual for the ride.

1.1. Installation at the new location

- **Install the ride per instructions in the operation and maintenance manual. (If you do not have the correct ride manual contact Moser's Rides.)**
- **The ride to be re-erected per manufacturers' specifications as addressed in the set-up, operation and maintenance manual and with a qualified technician.**
- **All worn areas without protective color or showing signs of rust should be restored to the original condition using the same paint or coating product as per manufacturers' specifications.**
- **All electromechanical components and connections should be carefully checked for wear and replaced, including micro switches, sensors and cables. The age, disassembly and relocation may have caused damage to them.**
- **Replace all the bolts (screws, nuts and washers) if class 10.9 or higher. Such connections can be tightened to torque only once, if removed or loosened they NEED TO BE REPLACED with new bolts.**

1.2. NDT test

NDT tests should be conducted on all of the components specified in the manual. If not specified, the components should be confirmed with Moser's Rides as to which tests should be run.

1.3. Check list

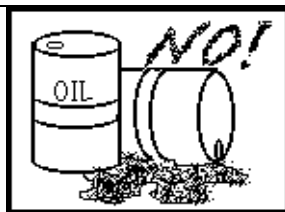
- Follow all requirements per the daily, weekly, monthly and yearly checklists in the ride manual and check each group of components outlined.
- Restore, repair or replace the worn out parts of the ride to original condition.
- Replace the parts of the ride expired.
- All components should be greased and lubricated as specified in the original manual checklist.

1.4. Initial testing

Perform all tests required by the Operation Manual of the ride.



ATTENTION: During testing, it is strictly forbidden to allow anyone other than authorized ride maintenance and repair personnel and technicians to enter the ride installation location.



IMPORTANT ! RECYCLE !

DON'T DISPOSE OF THE USED LUBRICANTS IN THE ENVIRONMENT. USE AND FILL THE ORIGINAL CONTAINERS AND TAKE TO AN AUTHORIZED LOCAL RECYCLING CENTER.

23 NDT TEST

Every years of operation must be carried out the NDT test on the critical components of the Ride Frame.

The NDT test to carry out are **MAGNETIC TEST (MT) and ULTRASONIC TEST (UT)**.

The Critical Components are :

PULLEY PIN

CYLINDER PIN

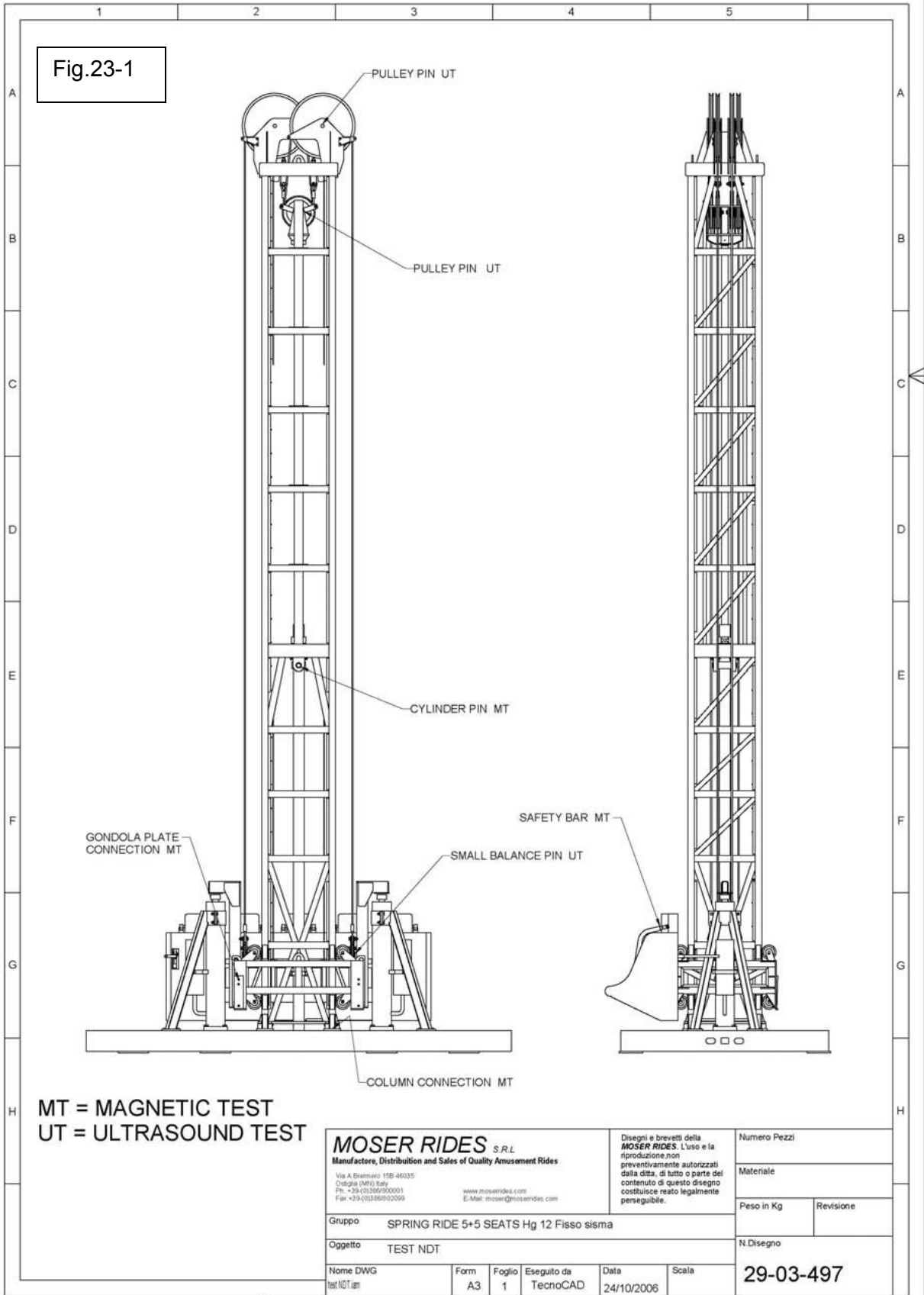
SAFETY BAR PIN

SMALL BALANCER PIN

GONDOLA PLATE CONNECTION

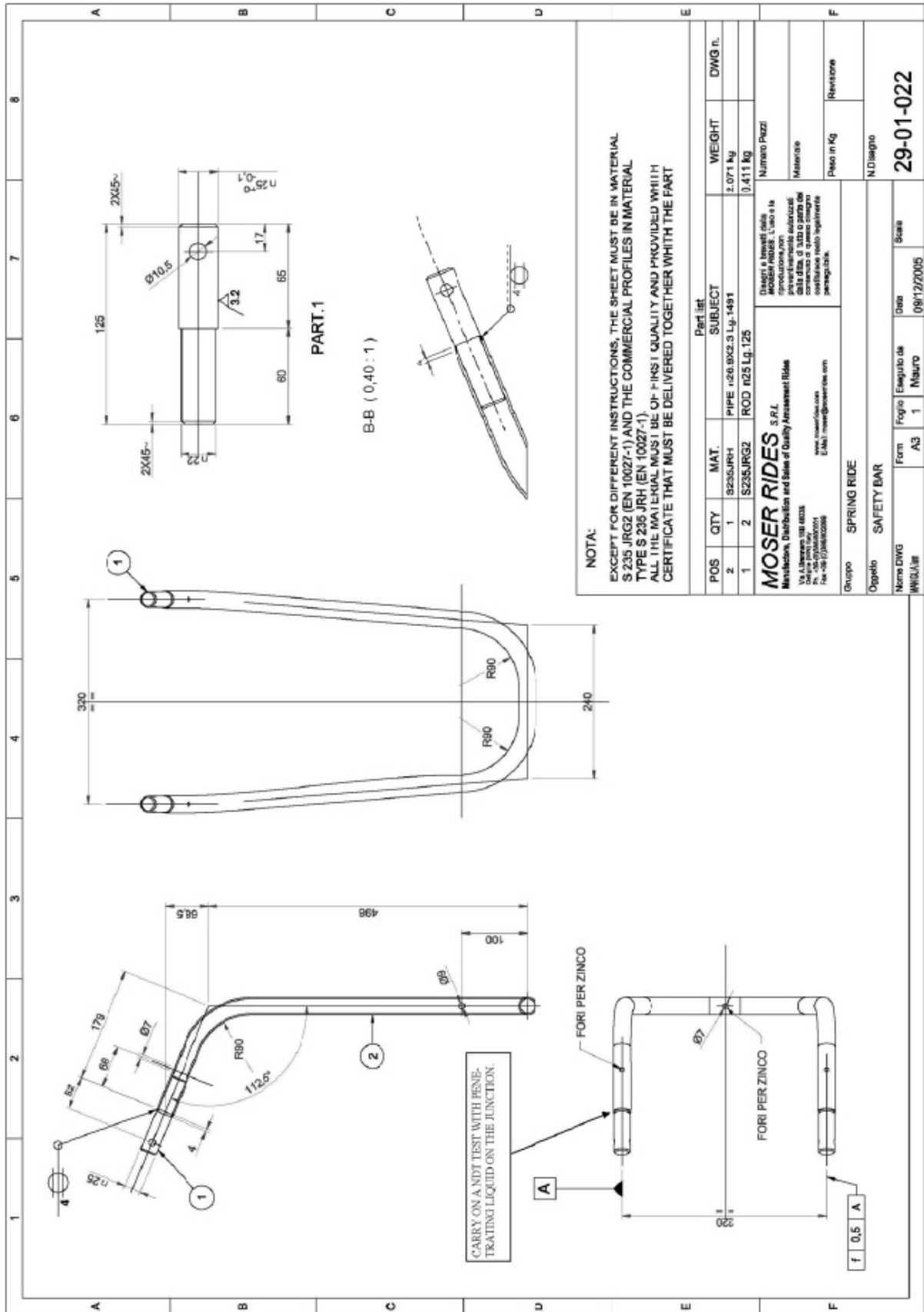
COLUMN CONNECTION

PLEASE REFER TO THE FIG.23-1 FOR THE LOCATION OF THE COMPONENTS.



MOSER RIDES S.R.L. Manufacture, Distribution and Sales of Quality Amusement Rides Via A. Ghislerio 15B 46035 Chignola (MN) Italy Ph: +39-(0)356500001 Fax: +39-(0)356502099 www.moserrides.com E-Mail: moser@mose rides.com		Disegni e brevetti della MOSER RIDES . L'uso e la riproduzione non preventivamente autorizzati dalla ditta, di tutto o parte del contenuto di questo disegno costituisce reato legalmente perseguibile.	Numero Pezzi Materiale Peso in Kg Revisione
Gruppo SPRING RIDE 5+5 SEATS Hg 12 Fisso sisma Oggetto TEST NDT		N.Disegno 29-03-497	
Nome DWG test NDT.dwg	Form A3	Foglio 1	Eseguito da TecnoCAD
Data 24/10/2006	Scala		







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Bulletin No.: SR-8.5- 002
Release Date: September 30, 2006
Effective Date: September 30, 2006
Completion Date: OPTIONAL
Page 1 of 2

SERVICE BULLETIN

Ride Manufacturer: Moser Rides srl
Ride Name: Spring Ride – Permanent –Ground Mount-8.5 meter tall
Affected Serial Numbers: All new rides delivered after June 2006 and any ride that is retrofitted with the new wire rope.

ABSTRACT: Moser Rides is currently delivering the Spring Ride models with an improved wire rope. The new wire rope can be used without the previously established limitation of operating cycles.

REASON FOR RELEASE: The new wire rope used in building the ride has improved galvanizing and improved materials and has a longer service life.

ACTION TO BE TAKEN: The improved wire rope can be used until any of the following conditions is detected by the owner / operator during the regular, periodic inspection of the wire ropes.

NOTE

If any of the following conditions are found on one wire rope, both wire ropes must be replaced as a set.

1. Severe corrosion, including, but not limited to, rust appearing to come from the interior of the wire rope, pitting of the surface wires.
2. Severe stretching of the wire rope occurring in a short section and indicated by a reduction in the diameter of the wire rope.
3. Physical damage such as kinking, crushing or “bird caging”
4. One strand of the wire rope that has more than three broken wires in any one strand in one lay.
5. Six randomly broken wires in one lay.
6. Reduction in nominal wire rope diameter of more than any of the following:

Nominal Diameter	Maximum Reduction
5/16" and smaller	1/64"
3/8" to 1/2"	1/32"
9/16" to 3/4"	3/64"
7/8" to 1-1/8"	1/16"
1-1/4" to 1-1/2"	3/32"

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REFERENCED STANDARDS

OSHA 1926-550 Subpart N: *Cranes, derricks, hoists, elevators and conveyors.*

ANSI B30.5, 5-2.4.3 *Rope Replacement*, 5-2.4.4 *Rope Maintenance.*

ANSI B77.1 *Passenger Ropeways, Aerial Tramways, Aerial Lifts, Surface Lifts, Tows and Conveyors-Safety Requirements*

Moser Rides srl recognizes the above listed standards with regard to wire rope used for rigging, slings and hoists or the purpose of set-up and tear-down of amusement rides and for the raising and lowering of the passenger gondola(s) of amusement rides. Continued use of a wire rope depends on the judgment of the individual authorized and qualified to evaluate the wire rope. Moser Rides srl requires that prior to each set-up or tear-down the owner / operator's qualified representative inspect and evaluate all wire ropes on the ride. In a fixed location the periodic inspection of the wire rope is specified in the maintenance manual.



Warning!

Wire Rope WILL FAIL if worn-out, overloaded, misused, damaged, improperly maintained or abused. Wire rope failure may cause serious injury or death! Protect yourself and others. ALWAYS INSPECT wire rope for WEAR, DAMAGE or ABUSE BEFORE USE. NEVER USE wire rope that is WORN-OUT, DAMAGED, or ABUSED. NEVER OVERLOAD a wire rope. INFORM YOURSELF: Read and understand manufacturer's literature or "Wire Rope and Wire Rope Sling Safety Bulletin". *REFER TO APPLICABLE CODES, STANDARDS and REGULATIONS for INSPECTION REQUIREMENTS and REMOVAL CRITERIA.*



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Bulletin No.: SR-8.5- 06003A
Release Date: October 6, 2006
Effective Date: On approval of NJ or other AHJ if required.
Completion Date: OPTIONAL
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SERVICE BULLETIN

Ride Manufacturer: Moser Rides srl
Ride Name: Spring Ride – Permanent –Ground Mount and Protable-8.5 meter tall
Affected Serial Numbers: All including New Jersey TC-00045-00 & -01

ABSTRACT: The current configuration of the safety restraint system has been reviewed and approved or use by riders with a minimum height of 42 inches (unaccompanied) and 38 inches (accompanied by a “Supervising Companion”). We have received a number of requests from new and existing Owner / Operators to reduce the minimum height to 36 inches (accompanied by a “Supervising Companion”).

REASON FOR RELEASE: To accommodate the requests from new and existing Owner / Operators of the Spring Ride, 8.5 meter height, Moser Rides has developed a new design for the safety restraint system currently installed on the Spring Ride, 8.5 meter height that will be available for all new rides beginning in the 2007 deliveries. The new restraint design will be made available as a retrofit kit for owner / operators of earlier models of the Spring Ride. Moser Rides has reviewed the anthropomorphic data for a 36 inch tall child and we believe that the new safety restraint design is a step forward in meeting the evolving requirements of ASTM F-2291 in regards to allowing family rides to accommodate smaller children. The new safety restraint kit includes the newly configured safety restraint and a new gas spring to lift the heavier restraint. The structural design of the safety restraint has the same design as in previously delivered Spring Rides. When properly installed, the safety restraint kit provides the necessary additional security to permit a child with a minimum height of 36 inches (915mm) to ride as long as they are seated properly and accompanied by a “Supervising Companion”.

NOTE

The definition of “Supervising Companion” varies from Jurisdiction to Jurisdiction. For purposes of the Service Bulletin, “Supervising Companion” is understood to mean a person who is responsible for assuring that the child will comply with applicable rules and regulations for the ride.

NOTE

This Service Bulletin applies ONLY to Moser Rides Spring Rides that have a height not exceeding 8.5 meters (27.9 feet) in height.

ACTION TO BE TAKEN: If the Owner / Operator chooses to install the new safety restraint kits on their existing Spring Rides, they can place orders for the new safety restraint kits which will be available for delivery in the first quarter of 2007. The Owner / Operator of the Spring Ride must also state the acceptance of the following restrictions to allow for the accommodation of a reduced height rider:

I (the Owner / Operator) of S/N_____ Spring Ride do hereby agree as follows:

1. Before allowing any rider with a minimum height of 36 inches (915mm) any Ride Operator that will be in control of the ride at any time while the ride is open to the public, will receive training in the proper seating and monitoring of the minimum height rider and their accompanying "Supervising Companion".
2. Before allowing any rider with a minimum height of 36 inches (915mm), the Owner / Operator agrees to modify the WARNING and INFORMATION signage for the ride to reflect the following:
 - A. Riders under the minimum height of 36 inches may not ride this ride.
 - B. Riders with a height of 36 to 42 inches MUST be accompanied by a "Supervising Companion".
 - C. The accompanied rider must not be seated in an end seat.
 - D. The accompanying "Supervising Companion" must be seated immediately adjacent to the minimum height accompanied rider.
 - E. The "Supervising Companion" may only take responsibility for one minimum height accompanied rider.
 - F. Two minimum height accompanied riders may not be seated adjacent to each other.
 - G. The minimum height accompanied rider must be seated properly with their legs extended out around the seat horn and under the lower portion of the safety restraint. The minimum height accompanied rider must be seated with their back against the seat-back and facing forward.
 - H. If at any time before or during the ride the minimum height accompanied rider attempts to retract their legs and sit on them, the ride WILL BE STOPPED and the rider and their accompanying responsible adult will be requested to EXIT the ride.
 - I. If the minimum height accompanied rider exhibits any outward signs of fear or discomfort, even though the accompanying "Supervising Companion" indicates there is no problem, the ride will be brought down to the Load / Unload position and the rider and their "Supervising Companion" will be allowed to EXIT the ride.
3. The new safety restraint kits will be installed in accordance with instructions received from Moser Rides.

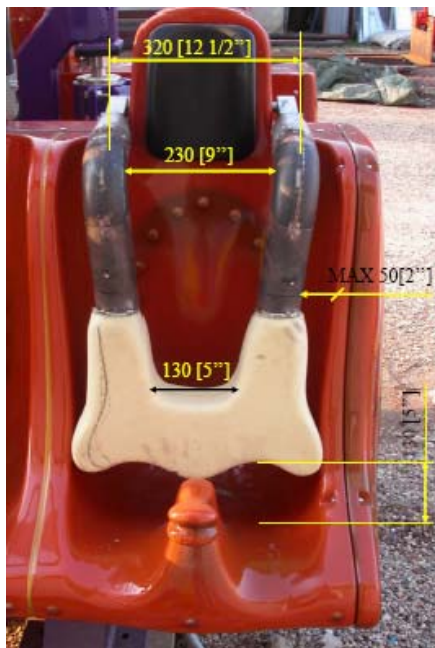
NOTE

Moser Rides srl does not accept any responsibility or liability for any changes to the minimum accompanied rider height for the Spring Ride-permanent model-8.5 meters tall that have not been authorized by Moser Rides in response to a written request or purchase order from the Owner / Operator. Moser Rides srl does not accept any responsibility or liability for failure of the Owner / Operator to properly train their Ride Operators, supervise their Ride Operators or provide adequate information and warning signage reflecting the proper behavior and seating of the accompanied minimum height rider.

Bulletin No.: SR-8.5- 06003A
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SUPPLIMENTAL INFORMATION

The following pre-production pictures show the basic details of the new safety restraint design for the Moser Rides srl, 85 Spring Ride. This data is for information purposes only and Moser Rides srl may make cosmetic or minor adjustments to the final delivered product.





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Bulletin No:
Release Date: 08/01/2018
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Completion Date:29/06/2018
Page: 1 of 2

SERVICE BULLETIN

Ride Manufacturer: Moser's Rides S.r.l
 Moser Entertainment S.r.l. Affected Production Dates: See Text

Ride Name: All. Affected Serial Nos: All.

Model No.: All

Abstract of Issue: General Inspection for Corrosion/Rust

Reason For Release:

Corrosion/rust can cause structural degradation which could result in catastrophic failure of structural members. Serious personal injury can result from structural failure.

This bulletin provides general information on detection of indications of corrosion/rust.

Action to be Taken:

All owners of the above noted amusement rides are required to perform the overall ride inspection detailed on the following pages within 90 days of the release date of this bulletin.

These inspections are in addition to all existing maintenance and inspection requirements. Ride owners and operators are reminded to comply with *the standards approved by ASTM F-24* including F-770: Practice for Ownership, Operation, Maintenance, and Inspection of Amusement Rides and Devices. These are available from ASTM International: www.astm.org and with the EN13814.

Reference Standards (Reproduced with permission of ASTM International)

ASTM F770 7.4 Inspection Documents - Inspection documents deemed appropriate by the owner/operator to be maintained in the amusement ride or device file shall be filed in accordance with the procedures outlined in this practice and Practice F1193.

ASTM F770 7.5 Notification of Manufacturer - The owner/operator of an amusement ride or device shall promptly notify the manufacturer of an incident, failure, or malfunction which, in the owner/operator's judgment, affects the continued proper operation of the amusement ride or device and is information of which the manufacturer should be aware.

All work must be performed by competent personnel, capable of understanding the function of the parts and their proper installation. Use only those components authorized, specified or provided by Moser's Rides S.r.l and Moser Entertainment S.r.l.. All applicable OSHA safety standards and safe industry practices must be observed.

Observe all safety information contained in the manufacturer's manuals and bulletins. Make available this bulletin and all related technical information to personnel using the equipment.

Maintenance Of The External Painting:

For the maintenance of the external painting of painted metal structures, refer to the EN ISO 12944-8 standard which provides for two types of maintenance: Ordinary, when there is still no rust, but the paint begins to be damaged Extraordinary when the rust appears on 1% of the painted surface as foreseen by EN ISO 4628-3. In both types of maintenance, the time interval between one control and the next must be determined by the maintenance manager, who knows the characteristics of the environment in which the structure operates. We cannot determine the maintenance intervals, the environment can change, for example it can be transformed from an agricultural environment, with low aggressiveness, to an industrial environment with medium to high aggressiveness.

Moser's Rides S.r.l issues notifications for the benefit of owners of amusement rides manufactured by Moser's Rides S.r.l As a service to the industry, and in the interest of employee and public safety, Moser's Rides S.r.l and Moser Entertainment S.r.l. also issues notifications for the benefit of owners of amusement ride equipment manufactured by Moser Entertainment S.r.l. Does not assume liability for losses associated with amusement ride equipment built by manufacturers other than Moser's Rides S.r.l and Moser Entertainment S.r.l.



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Effective Date:08/01/2018
Supersedes: N/A
Completion Date:29/06/2018
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SERVICE BULLETIN

Ride Manufacturer: Moser's Rides Srl Moser Entertainment Srl	Affected Production Dates: See Text
Ride Name: All Nos: All	Affected Serial

Model No.: All.

Detail of Issue

Inspection Procedure

The inspections defined in this bulletin are intended to obtain indications of corrosion/rust. Remove cover panels, scenery, etc. to gain access to structures for inspection. Signs of corrosion/rust may lead to further disassembly of the ride. Use one or more of the following methods:

IMPORTANT: *Comprehensive inspection records must be maintained. Record details on which areas were inspected, date of inspection, who performed inspection, type of inspection, and specific observations.*

1. Visually check structural members for visible signs of corrosion/rust. Pay close attention to areas where moisture may collect, both internally and externally. Examples include the lowest portion of tubing in a structure (in both transport and operating positions), under upholstery or padding, and under diamond plate or sheet metal. Visual indications of corrosion/rust include, but are not limited to:
 - Rust stains, bubbling or cracking of paint
 - Loss of material, including flaking, pitting or holes in the structure.
 - Deformation of tubes where water has collected and frozen.
2. Use a hammer to tap on and around questionable areas. Material loss can often be detected by a difference in the sound when compared to good solid material.
3. Use a sharp pick to probe questionable areas. Look for discoloration, soft areas, pitting and scaling. If the pick penetrates the surface, significant rust is indicated.
4. A borescope can provide visual access to enclosed and hard-to-reach areas if an existing hole or opening allows its use. Do not drill any structure without consulting with the manufacturer.
5. Test equipment such as an ultrasonic corrosion gauge can be used by competent owner/operators to perform additional testing.

While these inspection guidelines are not a substitute for inspection by qualified NDT personnel, they can help identify areas of inconsistent thickness, indicating corrosion/rust.

If indications of corrosion/rust are found, contact Moser's Rides S.r.l., for further instructions.

IMPORTANT: *The purpose of initial testing is to identify indications of corrosion/rust. If found, additional inspection by qualified NDT personnel may be required to determine the actual extent of material loss.*



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Bulletin No:SR001-2017

Release Date:14/06/2018

Effective Date:

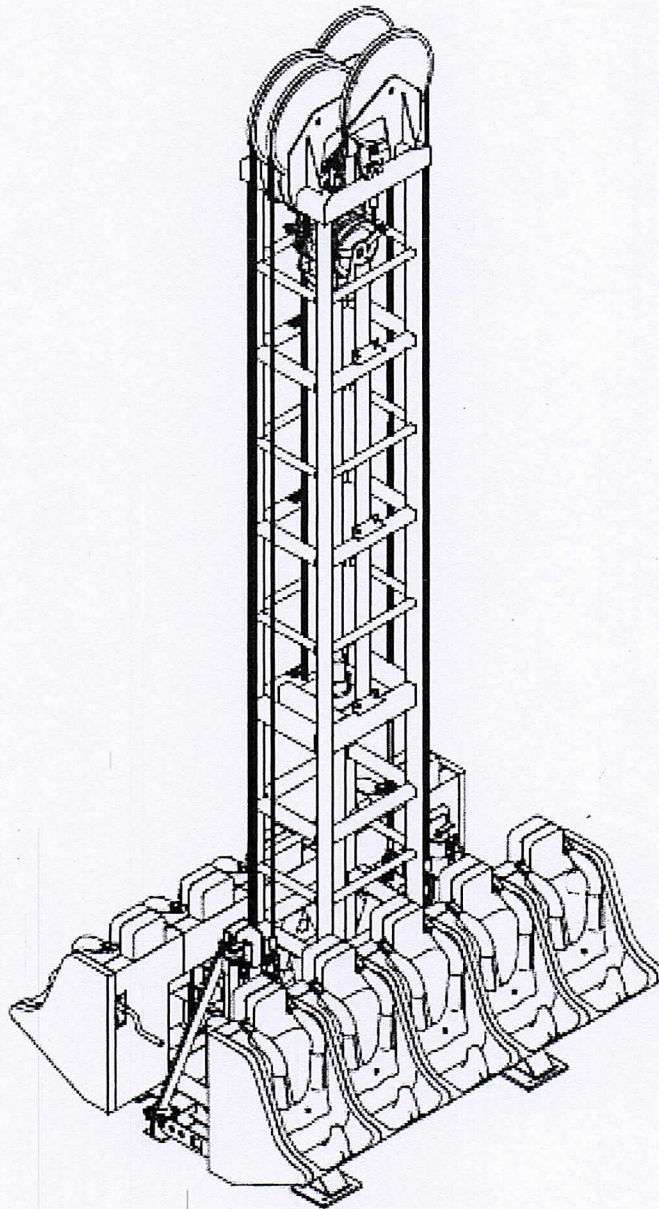
Supersedes:

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SPRING RIDE BULLETIN

THICKNESS and NDT CHECK for all type
of Spring Ride





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Release Date:14/06/2018
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SERVICE BULLETIN

Ride Manufacturer: Moser's Rides Srl Affected Production Dates: See Text

Moser Entertainment Srl
 Moser Rides Srl

Ride Name: All Rides Affected Serial Nos: All

Model No.: All

Reason for release:
 Corrosion/Rust can cause structural degradation which could result in catastrophic failure of structural members.

This bulletin provides general information on early detection of indication of corrosion in closed tubing and formed structural members which cannot be visually inspected.

Action to be Taken:
 All owners of the above noted amusement rides are required to perform the following inspections:

Visual Inspection (VT)

The visual inspection defined in this bulletin can be performed by a competent owner/operator.

Ultrasonic Testing (UT)

The Ultrasonic inspections defined in this bulletin are intended to obtain early indications of corrosion. Test equipment is available which allows competent owner/operators to perform this level of inspection themselves. The purpose of initial testing is to determine if inconsistencies in the thickness exist, indicating corrosion. Other test methods approved by the manufacturer or a competent third party engineer are acceptable.

These inspections are required on all rides which are 5 years of age or older, and 5 years intervals thereafter. When the ride is 15 years of age, or if significant changes are noted, annual inspection are required. Shorten the interval as deemed appropriate due to corrosive environments such as coastal regions.

This bulletin provides additional details of both types of inspections. These inspections are in addition to all existing maintenance and inspection requirements.

All work must be performed by competent personnel, capable of understanding the function of the parts and their proper installation. Use only those components authorized, specified or provided by Moser Rides srl. All applicable OSHA and EU OSHA safety standards and safe industry practices must be observed.

Observe all safety information contained in the manufacturer's manuals and bulletins. Make available this bulletin and all related technical information to personnel using the equipment.



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SERVICE BULLETIN

Ride Manufacturer: Moser's Rides Srl Affected Production Dates: See Text

Moser Entertainment Srl
Moser Rides Srl

Ride Name: All Rides Affected Serial Nos: All

Model No.: All

Detail of Issue

IMPORTANT: *Comprehensive inspection records must be maintained. Include details on which areas have been inspected, type of inspection, when inspection was performed, and specific observations.*

Visual Inspection (VT)

Visually check structural members for deformation and corrosion. Pay close attention to areas where moisture may collect, both internally and externally. Examples include the lowest portion of tubing in a structure, under upholstery or padding, and under diamond plate of sheet metal.

If indication of possible corrosion are observed, then a higher level of non-destructive examination or the removal of paint shall be performed to determine if a hazard exist.

Ultrasonic Inspection (UT)

NOTE: *Recommended equipment for this inspection is an Ultrasonic Corrosion Gauge with A-scan display and the ability to compensate for paint (for example xxxxxx, Model XX or equivalent). Test equipment must be operated and maintained per the equipment manufacturer's recommendations.*

Ultrasonic testing for material thickness is required on all enclosed steel structural tubes. Measure multiple points on each structural member using the samples in this service bulletin as a guide. Pay close attention to areas where moisture may collect, such as the lowest portion of the tube.

Compare all measurements taken from each structural member. Measurements must be within 10% from the highest (thickest) to the lowest (thinnest) readings. If any reading is outside of this 10% margin, more extensive testing is required. If significant corrosion is indicated, contact Moser Rides srl for further instructions.

IMPORTANT: *The purpose of initial testing is to determine if inconsistency in thickness exist, indicating corrosion. If corrosion is found, additional inspection by qualified NDT personnel is required to determine the actual extent of material loss.*

Moser's Rides srl, issues notification for the benefit of owners of amusement manufactured by Moser Rides srl. As a service to the industry, and in the interest of employee and public safety. Moser's Rides srl also issue notifications for the benefit of owners of amusement ride equipment for which the manufacturer no longer exists, such as Moser Entertainment srl. In doing so, Moser's Rides Srl does not assume liability



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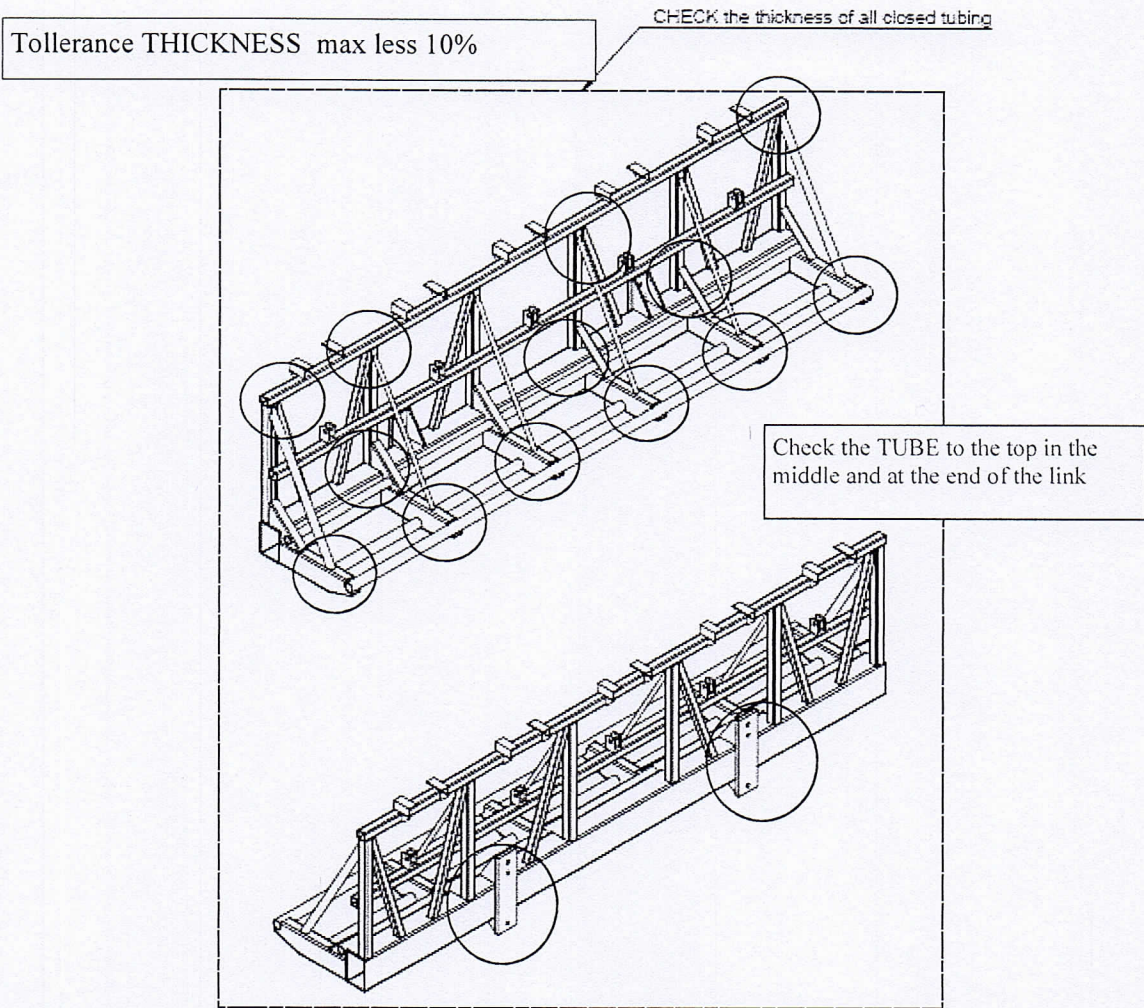
SERVICE BULLETIN

Ride Manufacturer: Moser's Rides Srl
 Moser Entertainment Srl
 Moser Rides Srl
 Ride Name: SPRING RIDE ALL model
 Model No.: SPRING -5 Seats
 Affected Production Dates: See Text
 Affected Serial Nos: All

Detail of Issue (continued):

These are examples of UT test points on a typical structural tube.

The specific location and pattern of test points will depend upon tube size, shape condition and orientation.



Each test point must be identified in such way that each measurement can be recorder. Fors example, assign a number to each point. This is essential for comparing measurements. Maintain the record for reference during future inspections.

IMPORTANT: This initial test is intended to obtain early indication of corrosion. If corrosioni is found, additional inspection si required to determine the actual extent of material loss.



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SERVICE BULLETIN

Ride Manufacturer: Moser's Rides Srl
 Moser Entertainment Srl
 Moser Rides Srl

Affected Production Dates: See Text

Ride Name: All Rides

Affected Serial Nos: All

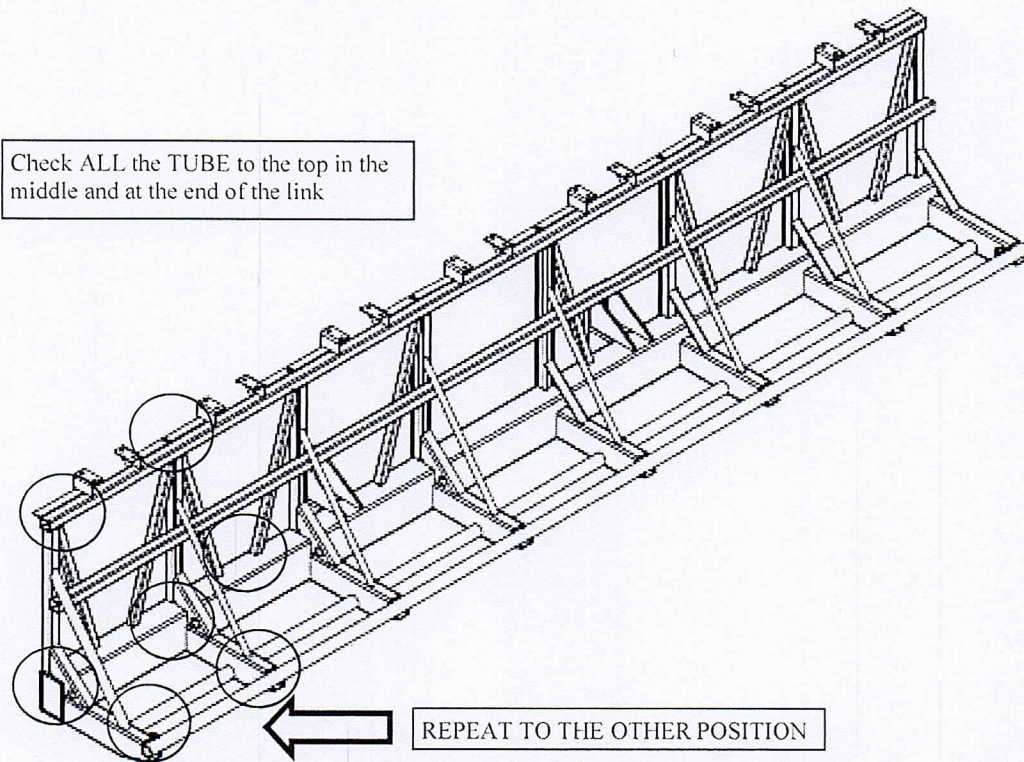
Model No.: SPRING -7 Seats

Detail of Issue (continued):

These are examples of UT test points on a typical structural tube.

The specific location and pattern of test points will depend upon tube size, shape condition and orientation.

Tolerance THICKNESS max less 10%



Each test point must be identified in such way that each measurement can be recorder. Fors example, assign a number to each point. This is essential for comparing measurements. Maintain the record for reference during future inspections.

IMPORTANT: This initial test is intended to obtain early indication of corrosion. If corrosioni is found, additional inspection si required to determine the actual extent of material loss.



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SERVICE BULLETIN

Ride Manufacturer: Moser's Rides Srl
 Moser Entertainment Srl
 Moser Rides Srl
 Affected Production Dates: See Text

Ride Name: All Rides
 Affected Serial Nos: All

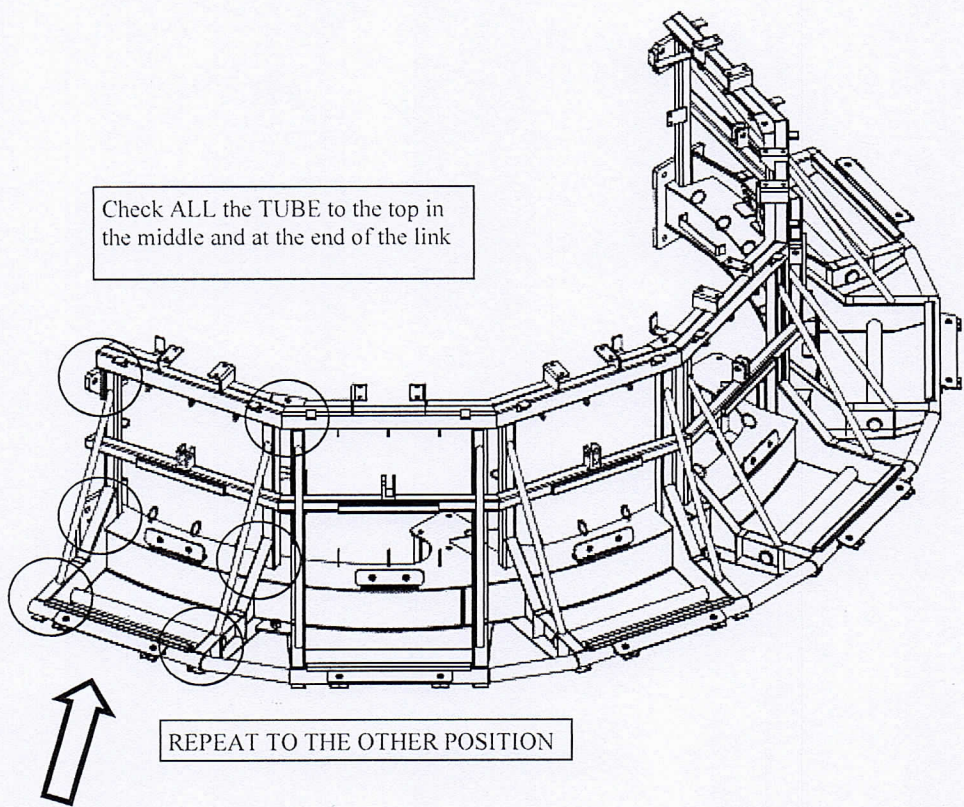
Model No.: SPRING –Round 6+6 Seats

Detail of Issue (continued):

These are examples of UT test points on a typical structural tube.

The specific location and pattern of test points will depend upon tube size, shape condition and orientation.

Tolerance THICKNESS max less 10%



Each test point must be identified in such way that each measurement can be recorder. Fors example, assign a number to each point. This is essential for comparing measurements. Maintain the record for reference during future inspections.

IMPORTANT: This initial test is intended to obtain early indication of corrosion. If corrosioni is found, additional inspection si required to determine the actual extent of material loss.



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SERVICE BULLETIN

Ride Manufacturer: Moser's Rides Srl
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 Affected Production Dates: See Text

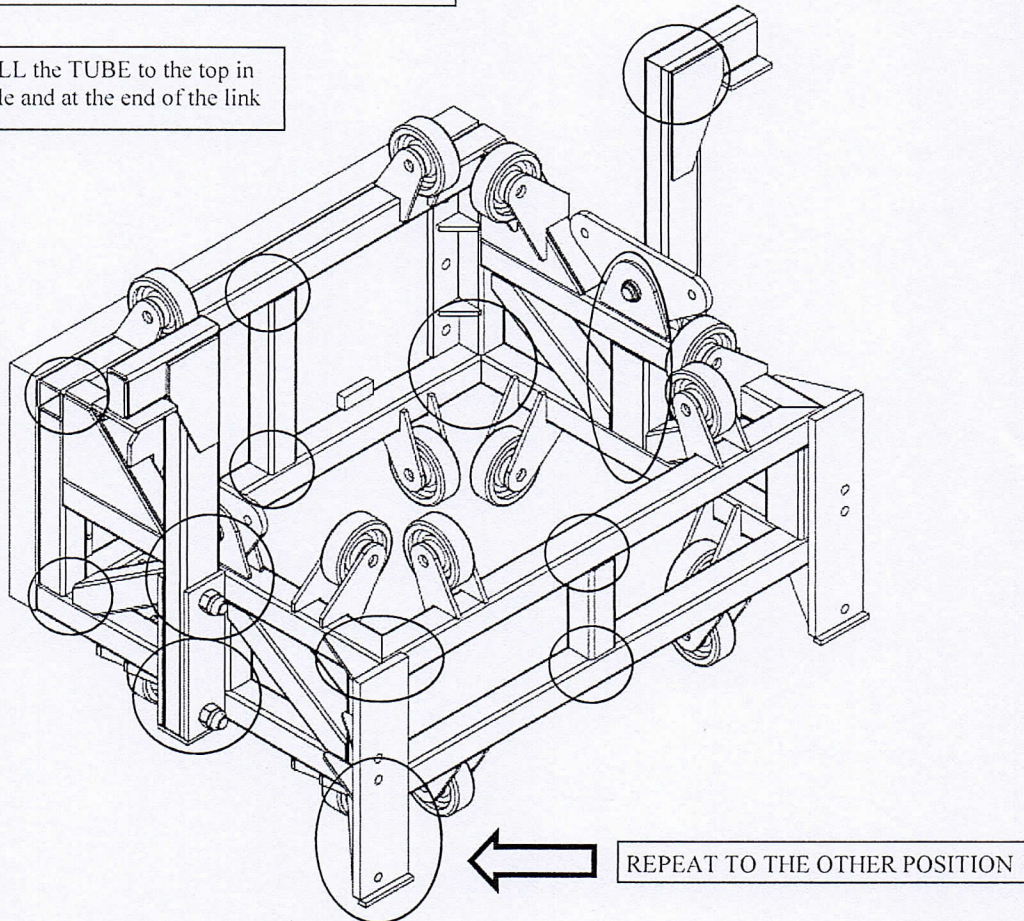
Ride Name: All Rides
 Affected Serial Nos: All

Model No.: SPRING -5-7 SEATS and ALL only one roof

Detail of Issue (continued):
These are examples of UT test points on a typical structural tube.
 The specific location and pattern of test points will depend upon tube size, shape condition and orientation.

Tolerance THICKNESS max less 10%

Check ALL the TUBE to the top in the middle and at the end of the link



Each test point must be identified in such way that each measurement can be recorder. Fors example, assign a number to each point. This is essential for comparing measurements. Maintain the record for reference during future inspections.

IMPORTANT: This initial test is intended to obtain early indication of corrosion. If corrosioni is found, additional inspection si required to determine the actual extent of material loss.



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Bulletin No:SR001-2017
Release Date:14/06/2018
Effective Date:
Supersedes:
Completion Date:
Page: 8

SERVICE BULLETIN

Ride Manufacturer: Moser's Rides Srl
 Moser Entertainment Srl
 Moser Rides Srl
 Affected Production Dates: See Text

Ride Name: All Rides
 Affected Serial Nos: All

Model No.: SPRING -5+5 -and 7+7Seats

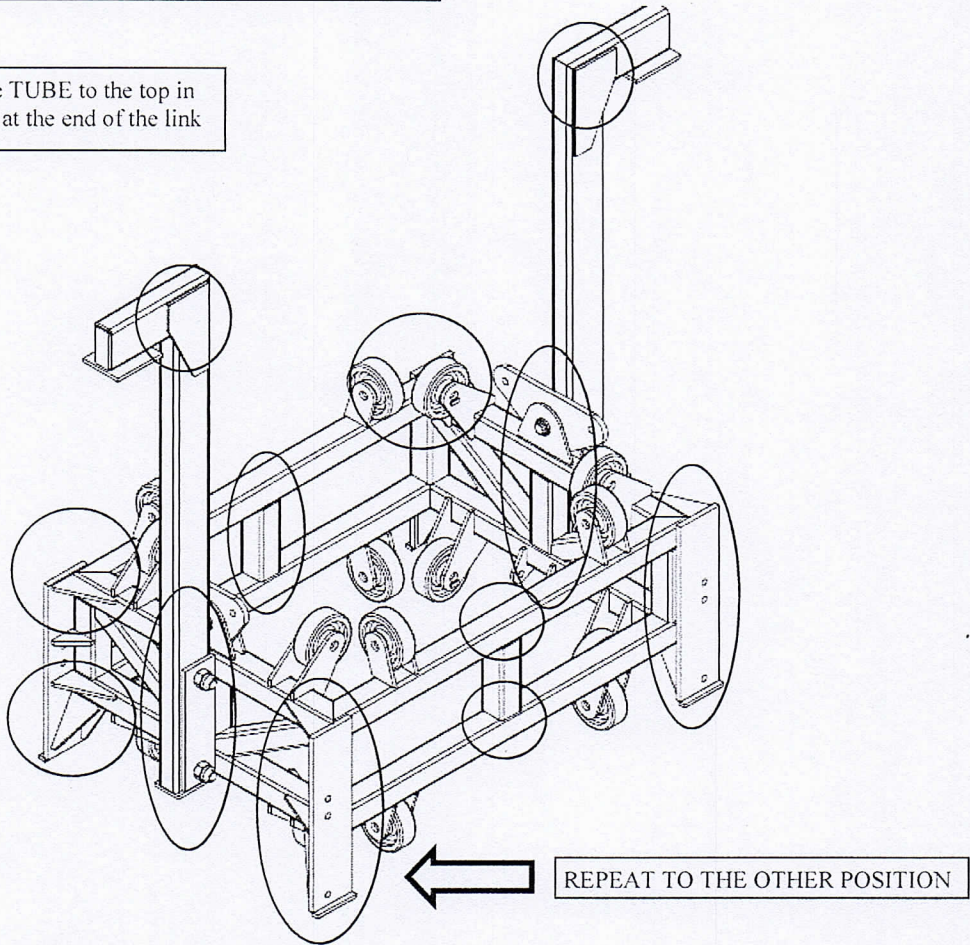
Detail of Issue (continued):

These are examples of UT test points on a typical structural tube.

The specific location and pattern of test points will depend upon tube size, shape condition and orientation.

Tolerance THICKNESS max less 10%

Check ALL the TUBE to the top in the middle and at the end of the link



Each test point must be identified in such way that each measurement can be recorder. Fors example, assign a number to each point. This is essential for comparing measurements. Maintain the record for reference during future inspections.

IMPORTANT: This initial test is intended to obtain early indication of corrosion. If corrosioni is found, additional inspection si required to determine the actual extent of material loss.



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SERVICE BULLETIN

Ride Manufacturer: Moser's Rides Srl
 Moser Entertainment Srl
 Moser Rides Srl

Affected Production Dates: See Text

Ride Name: All Rides

Affected Serial Nos: All

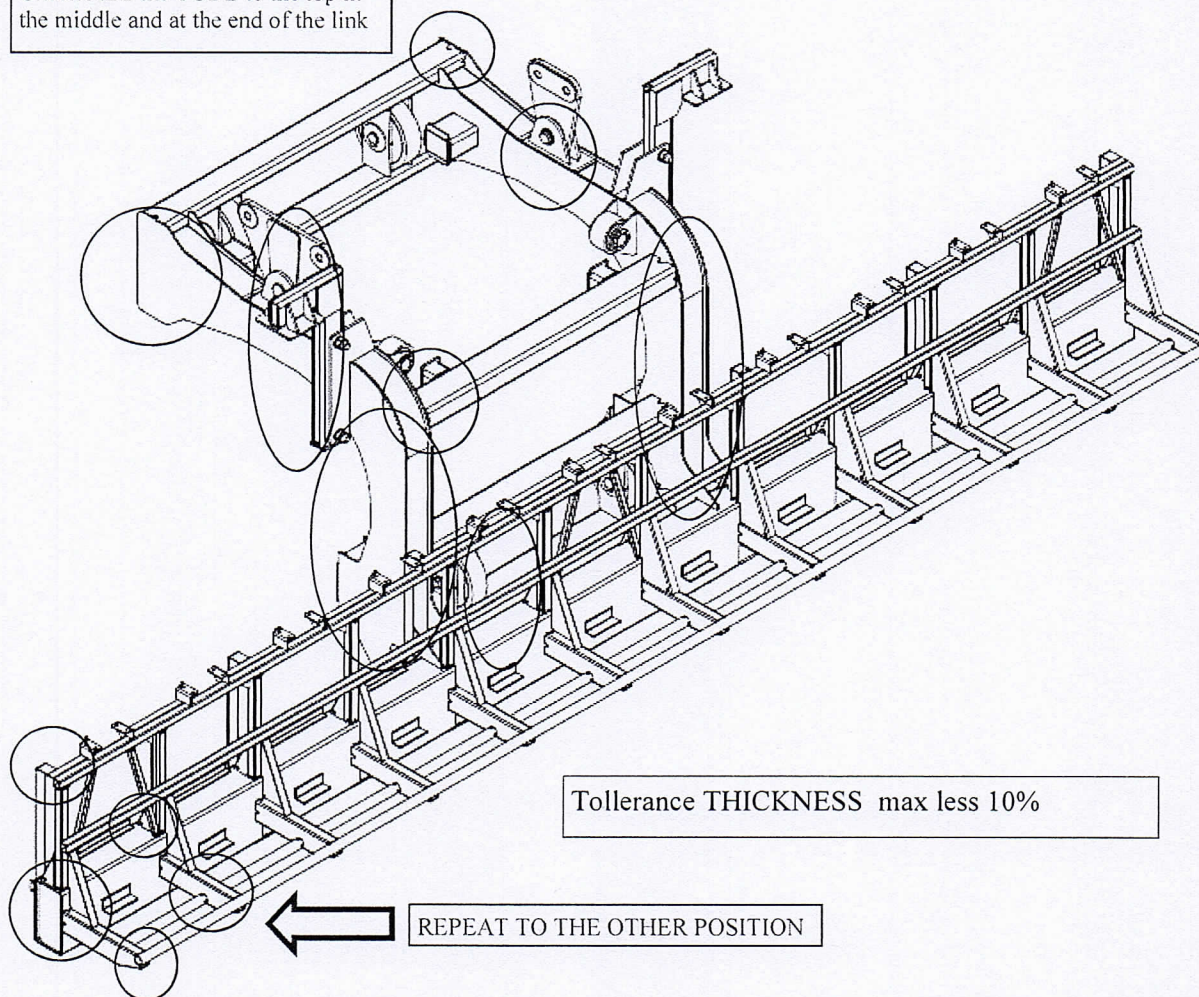
Model No.: SPRING -11 Seats

Detail of Issue (continued):

These are examples of UT test points on a typical structural tube.

The specific location and pattern of test points will depend upon tube size, shape condition and orientation.

Check ALL the TUBE to the top in the middle and at the end of the link



Each test point must be identified in such way that each measurement can be recorder. Fors example, assign a number to each point. This is essential for comparing measurements. Maintain the record for reference during future inspections.

IMPORTANT: This initial test is intended to obtain early indication of corrosion. If corrosioni is found, additional inspection si required to determine the actual extent of material loss.



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SERVICE BULLETIN

Ride Manufacturer: Moser's Rides Srl
Moser Entertainment Srl
Moser Rides Srl

Affected Production Dates: See Text

Ride Name: All Rides

Affected Serial Nos: All

Model No.: SPRING –STANDARD BASE

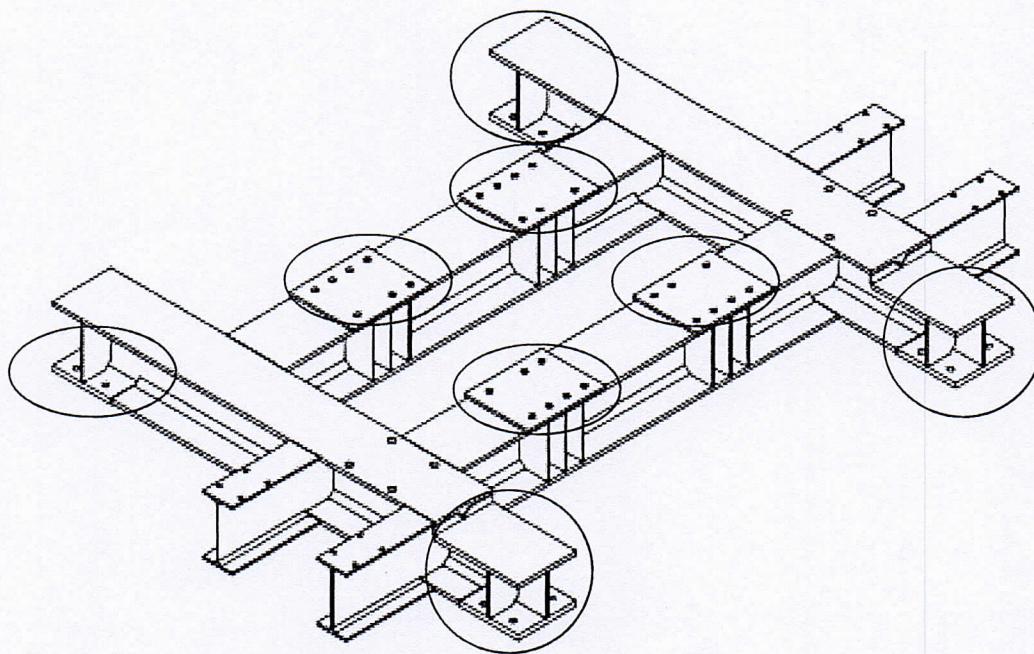
Detail of Issue (continued):

These are examples of UT test points on a typical structural tube.

The specific location and pattern of test points will depend upon tube size, shape condition and orientation.

Check ALL the TUBE to the top in the middle and at the end of the link

Tolerance THICKNESS max less 10%



Each test point must be identified in such way that each measurement can be recorder. Fors example, assign a number to each point. This is essential for comparing measurements. Maintain the record for reference during future inspections.

IMPORTANT: This initial test is intended to obtain early indication of corrosion. If corrosioni is found, additional inspection si required to determine the actual extent of material loss.



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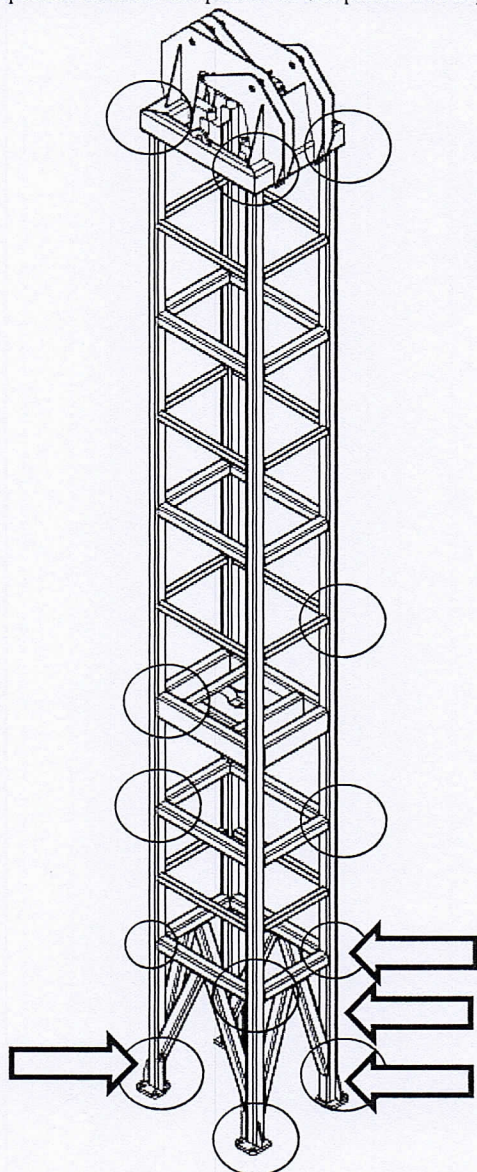
SERVICE BULLETIN

Ride Manufacturer: Moser's Rides Srl Moser Entertainment Srl Moser Rides Srl	Affected Production Dates: See Text
Ride Name: All Rides	Affected Serial Nos: All
Model No.: SPRING –STANDARD BASE	

Detail of Issue (continued):

These are examples of UT test points on a typical structural tube.

The specific location and pattern of test points will depend upon tube size, shape condition and orientation.



Check ALL the TUBE to the top in the middle and at the end of the link

Tolerance THICKNESS max less 10%

REPEAT IN ALL OTHER POSITION CONNECTION TUBE

Each test point must be identified in such way that each measurement can be recorder. Fors example, assign a number to each point. This is essential for comparing measurements. Maintain the record for reference during future inspections.

IMPORTANT: This initial test is intended to obtain early indication of corrosion. If corrosioni is found, additional inspection si required to determine the actual extent of material loss.



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SERVICE BULLETIN

Ride Manufacturer: Moser's Rides Srl
 Moser Entertainment Srl
 Moser Rides Srl

Affected Production Dates: See Text

Ride Name: All Rides

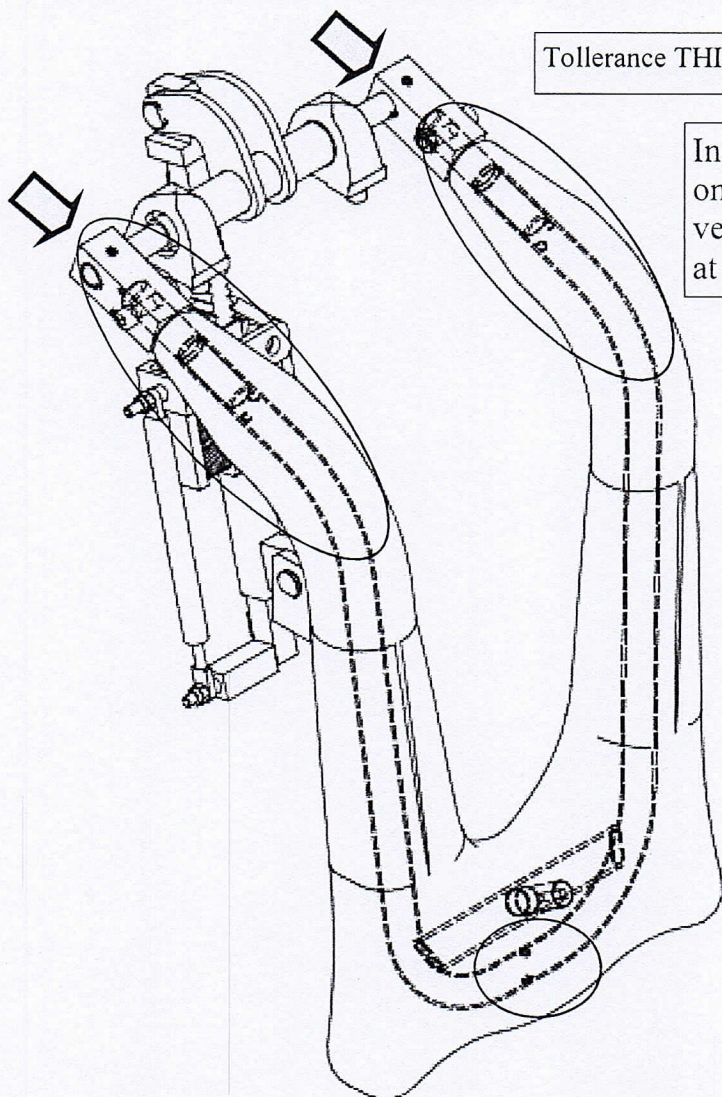
A ffected Serial Nos: All

Model No.: SPRING –STANDARD BASE

Detail of Issue (continued):

These are examples of UT test points on a typical structural tube.

The specific location and pattern of test points will depend upon tube size, shape condition and orientation.



Tolerance THICKNESS max less 10%

In this case, to check the corrosion on a covered tube, you must remove the handle and perform an x-ray at an accredited laboratory.

Each test point must be identified in such way that each measurement can be recorder. Fors example, assign a number to each point. This is essential for comparing measurements. Maintain the record for reference during future inspections.

IMPORTANT: This initial test is intended to obtain early indication of corrosion. If corrosioni is found, additional inspection si required to determine the actual extent of material loss.



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SERVICE BULLETIN

Ride Manufacturer: Moser's Rides Srl
 Moser Entertainment Srl
 Moser Rides Srl

Affected Production Dates: See Text

Ride Name: All Rides

Affected Serial Nos: All

Model No.: SPRING –STANDARD

FOR THIS CHECK we require that these inspection procedures be performed by qualified personnel in accordance with EN 9712 and ISPECTOR LEVEL Certified Level 2

The control tool must be tested and approved:
 Sample Patent for NDT OPERATOR

Certificato numero: 003991-UT-2-C Rev. 0
 Certificate number

Nato/a (Born in) **PIACENZA (PC)** Il (on) **1981-12-01**

È certificato in conformità a:
 Is certified according to:

UNI EN ISO 9712:2012

metodo (test method) **UT**
 livello (level) **2**

limitazione (limitation) -- (--)
 applicazione (application) -- (--)

nel settore industriale (in the industrial sector) **Fabbricazione metalli (Metal manufacturing)**

Data prima emissione (first issue date) **2013-12-06**
 Data ultima modifica (last modification date) **--**
 Data scadenza (expiry date) **2018-12-05**

per l'organismo di Certificazione (Area C) / Certification Body (CPB Dept)
Emanuele Gandolfo

Il responsabile del Centro di Esame / Head of Examination Centre
Simone Rusca

La persona certificata / The Certified person

ACCREDIA
 SOCIETÀ ITALIANA DI ACCREDITAMENTO

SGQ n° 021A PRS n° 021C
 PKD n° 021B SGA n° 033D

Memoria degli Accordi di Mutuo Riconoscimento EA, IAF e ILAC
 Signatory of EA, IAF and ILAC Mutual Recognition Agreement

Il presente certificato è conforme anche ai requisiti delle norme UNI EN 473:2006 o ISO 9712:2005 (cl. 5.14 della norma UNI EN ISO 9712:2012).
 This certificate complies also with requirements of Standards EN ISO 473:2006 and ISO 9712:2005 (see 5.14 of EN ISO 9712:2012).

Il certificato non include l'autorizzazione ad operare da parte del datore di lavoro ed è soggetto ai requisiti delle condizioni stabilite nel Regolamento ISO CERT QAS 017 R.
 This certificate does not include the authorization to operate by the employer and is compliant with the terms established by ISO CERT QAS 017 R.

IIS CERT Srl Lungobisagno Istria 29 R - 16141 GENOVA - www.IIScert.it
 Corporate Governance Istituto Italiano della Saldatura

Mod. QAS 025 - 11 rev. 0