

INSPECTION AND MAINTENANCE

SCHEDULE FOR ALL SMP PLAYGROUND EQUIPMENT

All SMP Playground equipment should be maintained in accordance with European Standards recommendations for the routine and operational inspection and maintenance of playground equipment: EN1176-7.

The frequency of inspection will vary with the type of equipment/materials used and other factors e.g.: heavy use, levels of vandalism, coastal location, air pollution, age of equipment.

If parts are discovered to be unsafe during inspection and cannot be replaced or corrected immediately, the equipment (or parts) should be secured against further use (immobilised or removed from site).

Routine Visual Inspection

A routine visual inspection is recommended. This should consist of the following as a minimum, in the case where the equipment is under intensive use or the object of vandalism, a daily check of this kind should be necessary:

- a. Structure not bending, cracking, loosening.
- b. Surface finish. No damaged paint, rusting, other corrosion or deterioration and all surfaces are free from sharp edges.
- c. Foundation not cracked, loose in ground or exposed due to damage or deterioration of the finished surface used.
- d. Impact Absorbing Surfacing not compacted, damaged, puddling, with no contaminants or sharp objects.

If a grass surface has been selected, ensure it is in good condition grass

Note: materials such as grass have some limited impact attenuating properties and experience has shown that if well maintained, they are effective for certain fall heights and may be used without the need to conduct a test (subject to EN 1176 and national recommendations). If not adequately maintained their impact attenuation is significantly reduced.

If a loose fill surface has been selected, ensure it is in good condition and that it is of sufficient thickness to coincide with the 'Basic Level Marks' on the equipment up stands.

- e. Consumable (items that wear during use e.g. chains, ropes or bearings) items not missing bent, broken, loosened, worn.
- f. All parts are secure and that there is no excessive movement between them which may lead to finger traps and any other traps.

EQUIPMENT GROUPS

Titan Carousel

1. When checking fixings ensure that the support arms are tightly attached to the central hub. If necessary remove plastic covers and tighten fixings to the correct torque. (See Installation Instructions for the correct torque setting).

Typhoon Carousel

1. At every inspection check for excessive wear on the bobbins (part number 404110) - to check push Wings against the mast and measure the gap between the mast and the internal diameter of the Halo rings adjacent to the bobbin fixture. If the gap is less than 5mm replace the bobbin. Repeat for all bobbins. Due to the uneven loading it is recommended that both upper and lower Halo ring assemblies are rotated 120 degrees every 9 to 12 months to spread the wear and prolong the life on the Bobbins.
2. The suspension ropes (part number 404112) are a high wear component; check the integrity of the ropes at every inspection paying particular attention to the area below the universal joints at the very top of the assembly, if there are any signs of fatigue or distress replace the rope component.

Typhoon annual inspection in addition to all the foregoing: -

1. Using an appropriate device, raise the wing arm to release the tension on the suspension ropes, inspect the upper column rope connection bushes, pins, fasteners and rope ferrules – replace any or all defective or suspect components.
2. Ensure that the upper column swivel block is free to rotate and free from metal to metal contact.
3. Remove the six dome headed screws securing the Upper Halo, (noting the position of the bobbins relative to wing arms) inspect all three bobbins for security, excessive signs of wear, flats or other abnormalities and that they are free to rotate – if defective replace all three bobbins. Refer to installation for replacement instructions.
4. After completing the above for the upper Halo Ring repeat the same process on the lower Halo Ring.

Dragonfly and Gullwing Seesaws

1. Check seat height when fully depressed - the distance from the underside of the seat to finished surface level should be not less than 230mm.
2. Check "ROSTA" rubber dampening unit (part number 502520) is functioning correctly - after being fully depressed the top component should return to a position of equilibrium $\pm 5\%$ on its own.
3. In the event the "ROSTA" rubber dampening unit fails to reach equilibrium as described above or if it starts to make a "grinding" noise a replacement suspension kit can be ordered by quoting 502103 and fitting in accordance with the supplied instruction.

Scorpion

1. Check that the distance from the underside of the black rubber "Stand" component (part number 402500) to finished surface level is not less than 400mm.
2. Check moving components for wear, lubricate with "graphite" spray as appropriate.

Rope Components

1. Ensure that the ropes are not frayed.
2. That all fixings are tight and have no protruding sharp edges.
3. Ensure foot walking ropes are maintained at an adequate tension so that the distance from the underside of the rope to finished surface level is not less than 230mm.
4. SMP recommend rope end fixings are replaced when the link cross section reaches a size of 60% of its original size compared to a non-wearing surface. Care should be taken that the rate of wear and time to the next inspection is taken into account:
 - a. Eye bolts welded onto beam.
 - b. Split links.
 - c. Swaged eye terminals attached to the rope ends.
 - d. Where fork end ferrules are provided check their integrity, paying particular attention to the wear on the M10 pins.

Chain Components

1. The chains are not twisted.
2. SMP recommend chains are replaced when the chain link cross section reaches a size of 60% of its original size on any link compared to a non-wearing surface. Care should be taken that the rate of wear and time to the next inspection is taken into account:
 - a. Eye bolts welded onto beam.
 - b. Split link.
 - c. Top chain link.
 - d. Main chain link.
 - e. Chain swivel links where fitted move freely and have no excessive wear.

Shackles

1. SMP recommend shackles are replaced when the link cross section reaches a size of 60% of its original size on any link compared to a non-wearing surface. Care should be taken that the rate of wear and time to the next inspection is taken into account
 - a. Shackle pins have no steps or cracks in them.
 - b. Ensure that Roll pins are inserted.

Bushes (shackles, pivots and rotating items e.g. Swings and seesaws)

1. Inspect bush for wear (recommended maximum 0.5mm in vertical plane).
2. Bushes are pivoting freely without squeaks or binding.

Bearings

1. Units rotate freely (see maintenance procedure).

Springs

1. Check the clamps for wear or fretting. If the parts exhibit any sign of cracks, permanent deformation, wear or rust they should be replaced immediately.

MAINTENANCE PROCEDURE

Whilst any maintenance is carried out the equipment must be secured against use and the public warned of any risks associated with the work.

Consumable Components

Any parts replaced must comply with SMP specifications.

See installation instructions for Part numbers, part identification and method of assembly.

1. Powder Coated Finish to Steel and Aluminium Components.

(See separate SMP Refurbishment of Powder Coated Steel Structures on Play / Sports Equipment document).

Periodically our products should be inspected for mechanical damage, and we recommend that the powder-coated finish to steel components be cleaned with a mild detergent solution and soft cloth. This should generally be carried out at least once a year, unless the provision is within one mile of the sea in which case it should be carried out every three months. Do not use strong solvents or solutions containing chlorinated hydrocarbons, esters, ketones or abrasive cleaners or polish.

Particular attention should be paid to the areas adjacent to stainless steel components where corrosion on bare steel would be accelerated.

Any breaks in coating surface identified should be made good within 28 days.

Any bare metal should be thoroughly abraded with 600-grade paper to remove any corrosion, then immediately finished following the repair procedure Interpon PZ770 outlined in the refurbishment of powder coated steel structures instruction.
(All paints available from Cromadex centres worldwide.)

2. Galvanized Steel Components.

Periodically all galvanized parts should be checked for signs of any damage that may cause rusting. The parts should then be treated with a suitable cold galvanizing application, Rust-Oleum Galva Zinc (Din 50.976) or equivalent. Damaged areas should be prepared to the product manufacturer's instructions before applying.

3. Wooden Items.

a. Hardwood.

The timber parts should have any sharp edges or splinters removed. Any cracks should be monitored to ensure they do not grow sufficiently to be a finger trap. Wooden steps and ramps should be periodically cleaned to prevent the build-up of algae or other growths which could be slippery.

It is recommended that the hardwood items should be treated if required with a light application of Linseed oil, thinned as necessary with white spirit. Ensure that all excess oil is removed prior to putting the equipment back into use. This is particularly important on step treads to ensure they are not slippery.

b. Softwood.

The timber parts should have any sharp edges or splinters removed. Any cracks should be monitored to ensure they do not grow sufficiently to be a finger trap. Prior to 2003 SMP supplied all softwood sections CCA treated as was the norm at the time. Any CCA treated parts reaching the end of their life must be treated as hazardous waste and disposed of accordingly (must not be burnt). Timber sections supplied after 2003 were supplied untreated or by using an alternative treatment method. These items will need to be inspected and replaced on a more regular basis. The life of timber parts can be extended with the applications of coatings or other treatment products. However, we recommend that these are checked to ensure their suitability for use on children's playground equipment.

10. Bearings.

See installation instructions for replacement bearing parts and procedures.

11. Nylon Bushes (Swing anti-wrap bearings) Bush No. 19028901.

Apply universal grease through the grease nipple. Ensure any over spill is entirely cleaned off.

If the bush is worn more than the recommended maximum 0.5mm bush must be replaced. First remove the circlip, and then slide the bearing housing assembly off the bearing. Replace the two halves of the bearing with new ones. Grease the two halves of the new bearing with universal grease. Clean off any excess grease. Refer to installation instructions for replacement parts and procedures

12. Climb Grips.

Ensure the grips are in position and secure.

Climb grips may be cleaned to prevent build-up of algae or other growths which could be slippery using water with the aid of a stiff brush.

Refer to installation instructions for replacement parts and procedures.

13. Plastic Slides.

As required, these may be cleaned with a suitable graffiti remover. All SMP polyethylene Slides are UV stabilised high density polyethylene to provide a long trouble free life. However, after extended UV exposure some colour fading and material embrittlement can be expected. This will vary depending on the location and orientation of the slide, but after a period of 10 years all panels should be regularly checked for signs of embrittlement and replaced as required.

14. Stainless Steel Tube Slides.

On Tube Slide ensure all the clamp rings are secure and that all the tube sections butt tightly together. There should be no gap between sections.

Ensure the Tube Slide is sitting securely on its support legs. With no gaps larger than the permissible 8mm.

Ensure all three safety labels on inside of the Tube Slide entry panel are secure and legible, replace if necessary.

15. Glass reinforced plastic roof / canopy.

As required, these may be cleaned with a suitable graffiti remover.

All SMP GRP parts are UV stabilised high density polyethylene to provide a long trouble free life. However, after extended UV exposure some colour fading and material embrittlement can be expected. This will vary depending on the location and orientation of the roof, but after a period of 10 years all panels should be regularly checked for signs of embrittlement and replaced as required.

16. Polyethylene mouldings.

As required, these may be cleaned with a suitable graffiti remover.

All SMP polyethylene mouldings are UV stabilised high density polyethylene to provide a long trouble free life. However, after extended UV exposure some colour fading and material embrittlement can be expected. This will vary depending on the location and orientation of the mouldings, but after a period of 10 years all panels should be regularly checked for signs of embrittlement and replaced as required.

17. Spring and Clamps

To replace the spring & clamps, refer to the installation instructions. (Dismantling is the reverse of assembling)

Surface preparation for painting may introduce surface defects that create possible weaknesses. Therefore, no repainting of the spring is recommended.

Any replacement spring will need to be checked for compatibility.