**SCHEDULE PN**

Compliance with this notice may be achieved by;

(1)

1.1 Establishing the integrity of the original welds (e.g. as manufactured) on the boom. This will require the removal of any modifications to the boom and boom to hub connection such as strengthening plates. The welds on the boom, and boom root should then be subject to ultra sonic examination or any equally effective method capable of detecting cracks originating on the inside of the welds. The boom to hub weld should be subject to examination by a suitable method (e.g. Magnetic Particle Inspection). These Non Destructive Examination (NDE) procedures should be approved by a competent person qualified to Personal Certification in NDE Level 3 (PCN) prior to any examination taking place. A competent person qualified to at least PCN Level 2 (or an equivalent standard) should carry out these examinations. 100% examination of welds is required.

1.2 Any subsequent action will be dependent on this examination proving that the welds are crack free. If any welds are found to be cracked no further operation of the ride will be possible until all defects have been remedied and the procedure outlined above has been repeated.

And

1.3 Permanently and physically disabling the ability of the boom on Superstar amusement device SS5 to rotate while the ride is capable of being operated with the carousel rotating. Disconnecting the motor that drives the revolving mechanism on the boom can adequately achieve this. The boom must also be securely fixed in place to prevent rotation.

1.4 Having a schedule of Non Destructive Examination (NDE) drawn up by a person qualified to PCN Level 3 that identifies the safety critical parts requiring examination. In particular it must consider the following areas (a) banana arms (b) Inter arm tie rods (c) stabiliser legs, that have been shown to have design lives in the order of 10,000 ride cycles. A competent person qualified to at least PCN Level 2 (or an equivalent standard) must carry out this NDE.

1.5 This option requires that the strengthening plates that have been added to the ride since its manufacture are removed and not replaced, as they prevent the examination of the welds.

And

1.6 Arranging for Superstar ride number SS5 to be assessed by an Inspection Body registered with the Amusement Devices Inspection Procedures Scheme (ADIPS) in accordance with HSG 175, qualified and registered to carry out design reviews of fairground rides and the findings documented, including any recommendations for action.

1.7 Ensuring the ride is subjected to assessment of conformity to design and, if appropriate, to initial test, all of which must be completed before the ride is put back into use.

1.8 Ensuring that the outcome of the design review includes detailed information on the method, frequency and location of Non Destructive Testing of the safety critical parts of the ride throughout its intended life. In particular the design review should consider the issue of ensuring the effective securing of the boom in position.

1.9 Ensuring that any additional information from the design review is provided to the registered inspection body that is engaged to carry out the annual thorough examination of the Superstar ride SS5

1.10 Ensuring that a system of work is drawn up to implement any specific actions identified on the operator/owner as a result of the design review.

OR

(2)

2.1 Establishing the integrity of the original welds (e.g. as manufactured) on the boom. This will require the removal of any modifications to the boom and boom to hub connection such as strengthening plates. The welds on the boom, and boom root should be then be subject to ultra sonic examination, and the boom to hub weld subject to examination by a suitable method (e.g. MPI) specified by a competent person qualified to PCN Level 3, to be carried out by a competent person qualified to PCN Level 2. This examination must be capable of detecting cracks originating from the inside of the boom structure. 100% examination of welds is required.

2.2 Any subsequent action will be dependent on this examination proving that the welds are crack free. If any welds are found to be cracked no further operation of the ride will be possible until all defects have been remedied and the procedure outlined above has been repeated.

2.3 Fitting a device, such as a counter, to the ride that will accurately measure the number of revolutions carried out by the boom both clockwise and anti clockwise. It must measure revolutions on a cumulative basis and not be capable of being reset. The boom will be said to have made one revolution when the boom rotates 15 degrees (either clockwise or anti-clockwise) from its centralised position at rest.

2.4 Having a schedule of Non Destructive Examination drawn up by a person qualified to PCN Level 3, in consultation with a suitably competent mechanical/structural engineer that identifies the safety critical parts requiring examination. The schedule should detail the inspection technique(s) to be used, the level of disassembly and the frequency of examination (expressed in boom rotations),

the weld location and the acceptance criteria for each weld detail. The schedule should be based on current UK national standards and acceptance levels quoted to a current UK national standard, or equivalent. Any schedule that is drawn up will not be adequate unless it (a) addresses as a minimum the information identified in Table 1 relating to safety critical areas, and (b) any other safety critical welds identified by the manufacturer, e.g. welds at the car mounting pin brackets. Any defects found should be documented and referred to a competent engineer for assessment.

TABLE 1

| Weld Location | PREDICTED FATIGUE LIVES |
|---|---|
| Rear stabiliser leg | 732 |
| Rear chassis cross beam | 962,208 |
| Longitudinal chassis beam | 50,124 |
| Base of tower | 331, 962 |
| Top of tower | 9,113, 741 |
| Lower ram attachment | >10 million |
| Main lift ram | >10 million |
| Boom root (lower) | 39,073 |
| Boom root (upper) | 1871 |
| Boom weld detail 20mm-25mm transverse butt weld | 17,711 |
| Boom weld detail 15mm-20mm transverse butt weld | 13,410 |
| Boom weld detail 10-15mm transverse butt weld | 7, 388 |
| Boom weld detail 6-10mm transverse butt weld | 3,428 |
| Central tube (boom weld) | 4, 129 |
| Central tube (tube weld) | 69,122 |
| Pivoted arm | 57,541 |
| Fixed Arm | 22,793 |
| Arm at banana pivot | 4,902 |
| Inter arm tie rods | 7,282 |
| Banana arm elbow | 6,727 |

2.5 A ride cycle should been taken to be a cycle of operation incorporating 1.5 rotations of the boom clockwise followed by 1.5 rotations of the boom anticlockwise, or vice versa.

2.6 This option requires that the strengthening plates that have been added to the ride since its manufacture are removed and not replaced, as they prevent the examination of the welds.

Or

3 Any other equally effective means. Such means to be notified in writing to the server of the accompanying Notice and to the HSE address detailed on the accompanying Notice