



AUSTRALIAN RAIL TRACK CORPORATION

INFRASTRUCTURE, STRATEGY AND PERFORMANCE

Engineering Standards and Documents

The following recommendation, together with attached supporting documentation, has been considered by the Manager Standards & Systems on 6th March 2007.

Documents:

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| Ref No: | 08-08-10-056 - Systems & Equipment Approval |
| Subject: | 'WRSA' ClawLock Points Mechanism |
| Dated: | 17 th January 2007. |

Prepared By: Arthur Haberlin, Signal Engineer - Equipment
Endorsed by: Trevor Moore, Signal Standards Engineer

Items Considered for Approval:

| | |
|----------------------|---|
| Manufacturer: | Westinghouse Rail Systems Australia. |
| Product: | ClawLock Point Mechanism |
| Item Identification: | See list 02-0610-032a . |

The items in the form they were presented at the review date were approved for System & Equipment Approval to be used on all ARTC jurisdictions in accordance with the manufacturers published performance criteria and subject to the following.

Relevant ARTC Specifications:

| Ref. No. | Title | Status | Date |
|----------|----------------------------------|--------------------|-----------|
| SPS 02 | Environmental Conditions | Issue1 Revision 2 | May '05 |
| SPS 16 | Point Mechanisms | Issue 1 Revision 3 | May '05 |
| SMS 07 | The Claw Lock Mechanism Overhaul | Issue 1 Revision 1 | March '05 |

Specific Conditions of Approval:

- i. Inspection procedures to confirm the engagement of the locking mechanism and the maintenance of sufficient retention force when point movement is detected complete shall be in place for points fitted with this mechanism.
- ii. Only individual components from list **02-0610-032a** may be utilised in the assemblies listed and for application to the types of rail and turnout geometries shown.
- iii. Approved components from different manufacturers may be combined only in accordance with ARTC specification SMS 07.

Certificate Issued to:

Westinghouse Rail Systems
Australia
179-185 Normanby Rd.
South Melbourne Vic. 3205

A general condition of approval is that the supplier remains accredited to ISO 9001 specifically for these products and ARTC is advised on a 12 monthly basis that accreditation is current. ARTC reserves the right to conduct its own audit of the manufacture and supply of these components to AS 19011:2003.

Any subsequent change to the design, materials or manufacturing process is not covered by this approval.

Approved for use in the ARTC.



John Cowie
Manager Standards & Systems

APPROVAL No: **08-08-10-056**

Approval Date: **6th March 2007**



AUSTRALIAN RAIL TRACK CORPORATION LTD

Ref No: 01-0610-032a

Date: 4th January 2007

Equipment Type Approval

Subject: ‘Westinghouse’ ClawLock Points Mechanism

The following lists the individual components (by piece number) of ClawLock Points Mechanisms manufactured by Westinghouse Rail Systems Australia (WRSa) which are type approved for use in signalling installations on ARTC infrastructure under Type Approval Certificate **08-08-10-056** subject only to any conditions shown on that Certificate and the Conditions of Use shown against individual types.

| Piece No. | Quantity | Designation / Configuration | Conditions of Use |
|---|-----------------|---|----------------------------|
| 53kg rail 6100 or 10600 flexible switches | | | Main Drive |
| 4070S5 | 2 | ClawLock Housing | |
| 4330332402 | 4 | Housing Mounting Bolt (M20 x 80 thin head). | ♣ |
| 3330393901 | 2 | Locking Claw | |
| 3330204601 | 2 | Pin Assembly for locking claw | |
| 801S5 | 2 | Mechanism Cover | |
| 2330333501 | 2 | Switchblade Bracket | |
| 4330332401 | 4 | Bracket Mounting Bolt (M20 x 90 thin head). | ♣ |
| 4330333601 | 2 | Adaptor for switchblade bracket | |
| 4330337001 | 2 | Packing Set | |
| 1330204807 | 1 | Operating Bar (Complete assembly) | ♣ |
| 60kg rail 6100 or 9150 flexible switches | | | Main Drive |
| 684S5 | 2 | ClawLock Housing | |
| 4330332402 | 4 | Housing Mounting Bolt (M20 x 80 thin head). | ♣ |
| 3330393901 | 2 | Locking Claw | |
| 3330204601 | 2 | Pin Assembly for locking claw | |
| 801S5 | 2 | Mechanism Cover | |
| 2330204706 | 2 | Switchblade Bracket | For 6100 flexible switches |
| 2330204702 | 2 | | For 9150 flexible switches |



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| Piece No. | Quantity | Designation / Configuration | Conditions of Use |
|----------------------------------|----------|---|---------------------------------------|
| 4330332401 | 4 | Bracket Mounting Bolt (M20 x 90 thin head). | ♣ |
| 3330322203 | 2 | Adaptor for switchblade bracket | |
| 4330322501 | 2 | Packing Set | |
| 1330204807 | 1 | Operating Bar (Complete assembly) | ♣ For 6100 flexible switches |
| 1330204801 | 1 | | ♣ For 9150 flexible switches |
| 60kg rail 9150 flexible switches | | | Back Drive |
| 684S5 | 2 | ClawLock Housing | |
| 4330332402 | 4 | Housing Mounting Bolt (M20 x 80 thin head). | ♣ |
| 3330393901 | 2 | Locking Claw | |
| 3330204601 | 2 | Pin Assembly for locking claw | |
| 801S5 | 2 | Mechanism Cover | |
| 2330204702 | 2 | Switchblade Bracket | |
| 4330332401 | 4 | Bracket Mounting Bolt (M20 x 90 thin head). | ♣ |
| 3330322203 | 2 | Adaptor for switchblade bracket | |
| 4330322501 | 2 | Packing Set | |
| 1330204802 | 2 | Operating Bar (Complete assembly) | ♣ |
| Zu60kg asymmetric rail switches | | | Main Drive |
| 684S5 | 2 | ClawLock Housing | |
| 5278/20-80 | 4 | Housing Mounting Screw (M20 x 80 c' sink socket). | ♣ Used except for 'In Bearer' layout. |
| 5278/20-90 | | Housing Mounting Screw (M20 x 90 c' sink socket). | ♣ Used only for 'In Bearer' layout. |
| 951S5-LH | 1ea | Locking Claw | |
| 951S5-RH | | | |
| 3330406201 | 2 | Locking claw pin | ¶ |
| 4330324501 | 2 | Locking claw pin tab | |
| 801S5 | 2 | Mechanism Cover | |
| 2330328001 | 2 | Switchblade Bracket | |
| 4330325101 | 4 | Bracket Mounting Bolt | ♣ |
| 4330327901 | 4 | Shim Set | |



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| Piece No. | Quantity | Designation / Configuration | Conditions of Use |
|---------------------------------|----------|---|---------------------------------------|
| 1330204801 | 1 | Operating Bar (Complete assembly) | ♣ Used except for 'In Bearer' layout. |
| 1330204803 | 1 | Operating Bar (Complete assembly) | ♣ Use only for 'In Bearer' layouts. |
| Zu60kg asymmetric rail switches | | | Back Drive up to 800m (1 in 18.5) |
| 684S5 | 2 | ClawLock Housing | |
| 5278/20-80 | 4 | Housing Mounting Screw (M20 x 80 c'sink socket). | ♣ |
| 951S5-LH | 1ea | Locking Claw | |
| 951S5-RH | | | |
| 3330406201 | 2 | Locking claw pin | ¶ |
| 4330324501 | 2 | Locking claw pin tab | |
| 801S5 | 2 | Mechanism Cover | |
| 2330328001 | 2 | Switchblade Bracket | |
| 4330325101 | 4 | Bracket Mounting Bolt | ♣ |
| 4330327901 | 4 | Shim | |
| 1330204802 | 1 | Operating Bar (Complete assembly) | ♣ |
| Zu60kg asymmetric rail switches | | | Back Drive over 800m (1 in 18.5) |
| 684S5 | 2 | ClawLock Housing | |
| 5278/20-80 | 4 | Housing Mounting Screw (M20 x 80 c'sink socket). | ♣ |
| 951S5-LH | 1ea | Locking Claws left and right hand. | |
| 951S5-RH | | | |
| 3330406201 | 2 | Locking claw pin | ¶ |
| 4330324501 | 2 | Locking claw pin tab | |
| 801S5 | 2 | Mechanism Cover | |
| 2330324801 | 2 | Switchblade Bracket | |
| 4330325101 | 4 | Bracket Mounting Bolt | ♣ |
| 4330327901 | 4 | Shim | |
| 1330204809 | 1 | Operating Bar (Complete assembly) | ♣ |

♣ Adjustment of fittings with M20 bolts to be secured by HARD-LOCK nuts having a minimum of one clear thread beyond second nut when run on hand tight.

¶ Replacement for p/n 4330324401 which may continue to be used in commissioned layouts.