

## AUSTRALIAN RAIL TRACK CORPORATION

### STANDARDS and SYSTEMS

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#### Engineering Standards and Documents

The following recommendation, together with attached supporting documentation, has been considered by ARTC Risk and Safety Committee on 8<sup>th</sup> October 2007.

#### *Documents:*

Ref No:	<b>08-08-10-076</b> - Systems & Equipment Approval
Subject:	'Siemens' Points Machine (S700K)
Dated:	6 <sup>th</sup> August 2007.

Prepared By: Arthur Haberlin, Signal Engineer - Equipment

Endorsed by: Trevor Moore, Signal Standards Engineer

#### *Items Considered for Approval:*

Manufacturer:	Siemens AG Transportation Systems
Product:	Point Machine (S700K)
Item Identification:	See list <b>02-0609-028a</b> .

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

### ***Specific Conditions of Approval:***

- i. Procurement procedures for all versions of this machine shall include specification of the crank handle keying (A1 to A19) and shall require that the voltage cut-off key shall remain captive in the machine when operated.
- ii. The crank handle for each machine shall have a voltage cut-off key permanently attached such that the crank handle may be operated whilst the key is captive in the cut-off switch on the machine.
- iii. The point machine must be used to drive a separate 'rail head locking mechanism' (e.g. Claw Lock) unless a trailable (non-locking) arrangement is required.
- iv. For each application of this machine to ARTC infrastructure grant of waivers to requirements in ARTC standard SPS 16 – 'Point Mechanisms' will be required for the following items as appropriate.
  - clause 5.4.7 requiring a hand throw lever for emergency operation.
  - clause 3.5.4 requiring hand crank operation in a horizontal plane.
  - clauses 3.7.1 or 5.5.3 covering configuration of the contacts.
- v. For use in accordance with ARTC specification SDS 25 – 'Circuit Design Standards' and standard typical circuits which shall be developed and approved specifically for the S700K points machine.
- vi. Where continuous point blade position indication is required as part of the vital signal interlocking a separate detection mechanism shall be provided. The built in contacts may be used for motor cut off at end of stroke and for detection of the secondary point lock function of the machine.
- vii. Point machine detection circuit shall be wired over contacts in the voltage cut-off switch.
- viii. Only components from the list in **02-0609-028a** may be utilised.
- ix. Operations and Safeworking procedures including access to crank handle and operation of the voltage cut-off switch shall be published before the equipment is commissioned.

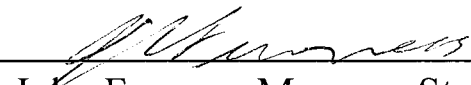
### ***Certificate Issued to:***

Siemens Ltd.  
Transportation Systems  
855 Mountain Highway  
Bayswater Vic. 3153

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 Furness, Manager Standards

**APPROVAL No: 08-08-10-076**

Approval Date: **8th October 2007**



**AUSTRALIAN RAIL TRACK CORPORATION LTD**

**Ref No: 01-0609-028a**

**Date: 6<sup>th</sup> August 2007**

**Equipment Type Approval**

**Subject: 'Siemens' Points Machine (S700K)**

The following lists the individual types (by catalogue number) of type S700K Points Machines manufactured by Siemens Transportation Systems which are type approved for use in signalling circuits on ARTC infrastructure under Type Approval Certificate **08-08-10-076** subject only to any conditions shown on that Certificate and the Conditions of Use shown against individual types.

<b>Catalogue No.</b>	<b>Motor Supply</b>	<b>Designation / Configuration</b>	<b>Conditions of Use</b>
C25106-A141-XX	110v DC	180mm throw, 110mm to 135mm blade movement.	@ AC immune motor. To order XX= A281 for Left Hand, A282 for Right Hand throw.
C25106-A141-XX	110v DC	150mm throw, 79mm to 90mm blade movement.	@ AC immune motor for swing nose crossing. To order XX= A279 for Left Hand, A280 for Right Hand throw.
C25106-A202-XX #	110v DC	180mm throw, 110mm to 135mm blade movement.	@ AC immune motor, trailable machine. To order XX= A53 for Left Hand, A54 for Right Hand throw.
C25106-A202-XX #	24v DC	180mm throw, 110mm to 135mm blade movement.	@ AC immune motor, trailable machine. To order XX= A59 for Left Hand, A60 for Right Hand throw.

@: May be used only where running rails carry no DC traction current.

#: New catalogue numbers to be issued, A202 version does not have coded crank handle or captive cut-off key.