

MANCO RAIL

Road/Rail Vehicle with
MANCO 5500 EWP
Scissor Lift



Year of Manufacture
2009

MANUFACTURED BY
MANCO RAIL
AUCKLAND, NEW ZEALAND

FEATURES

The MANCO 5500 EWP provides a unique, highly functionable platform designed specifically for rail electrification construction and maintenance. Offering on track, 500 kg SWL with 6 km/hr (max.) creep speed in offset up to 4 metres from centre of track, all executed from the platform controls and fully approved for use without an operator in the cab.

1. Full control from the working platform.
2. On track 6 km/hr max. track creep speed in all operational configurations.
3. Large platform work area – nominal 5 metres x 2 metres.
4. High load capacity – 500kg safe working load.
5. Slew facility allows 180° total movement; 90° offset to 4 metres from the centre line of the track.
6. Working height from platform floor to 5 metres above the track.
7. Key design elements include fitness for purpose; reliability; durability.
8. On rail drive system to 25 km/hr on track, fully hydrostatic, infinitely variable.
9. Scissor lift and platform are robust and strong.
10. Compliant with New Zealand, Australian and British Standards
11. MANCO RAIL has been designing and building rail equipment for 30 years, giving it a great breadth and depth of knowledge and experience.
12. After sales support for the products manufactured.



SPECIFICATIONS

Model	Manco 5500 EWP Scissor Lift
Name	Elevated work platform for railway work
Lift height	5.0m above rail
Lift stroke	2.5m (vertical)
Slew range	± 90° from centre
Maximum Number of Persons on the Platform	3
Total Rated Load	500kg
Travel Speed	25 km/h @ 1900 engine RPM
Creep Speed	6 km/h @ 1000 engine RPM
Maximum cant across tracks	3° Degrees
Hydraulic Pressure	170/250 bar (2500/3675 psi)
Maximum wind speed	12.5m/s

Contact Details

MANCO RAIL
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Report No: IND 43570

NOTE: THIS IS NOT A
CERTIFICATE**INSPECTION REPORT – EQUIPMENT**

Issued by Bureau Veritas New Zealand Ltd.

Type of Equipment	Elevated Work Platform by Manco				Date of inspection	23 rd October 2009
BVNZ Procedure(s) followed		IND PR 114				
Owner/Client	Manco / TSV Consulting	Manufacturer	Made by Manco	Date 2009	Serial No. 5078-09101-1060	
Address	P.O.Box 58609, Greenmount, Auckland, 2141	Unique Identifier	none	Client's plant ID	truck FLZ275	
Plant location	Toll Rail Yard - Wellington	Max SWL	500kgs / 3 persons			
Controller	Ross Williams	Client purchase order	15078			

Plant history	New Item - safety tests on EWP only
Location of supporting paperwork	Bureau Veritas New Zealand office; Manco office, Auckland

ITEMS NOT INSPECTED THIS TIME

Truck Chassis Mounting, High Rail gear & Internals of enclosed box type sections

SECTION A: Repairs required before a full term Certificate of Inspection can be issued

NONE

SECTION B: Detailed observations from this inspection

This inspection covers EWP section of truck mounted Manco Scissor Lift as fitted to truck FLZ 275. Truck chassis number is JHDGH1JPKXXX10206 - appears to be previously registered as ARA 486. As requested a full inspection of the EWP was carried out during testing with overload weight of 625kgs @ 90° to chassis (both sides) with a max of 3' list applied to truck - via 60mm packers under nearside high rail gear.

All safety interlocks and systems tested as listed below...:-

- Emergency stops function correctly at both ground and platform control stations
- Emergency lowering functions correctly at both stations.
- All controls function correctly with application of secondary 'deadmans' function operated.
- All controls clearly labelled for function and direction
- Out of level interlock switch operated manually and functions correctly by cutting out functions, flashing indicator light and sounding audible alarm
- Platform props fit and hold platform securely for the purposes of inspection & maintenance

Platform thoroughly inspected after testing completed and no signs of distortion, deformation or distress noted in any joints or connections.

The equipment described above was inspected in accordance with the Bureau Veritas Procedures for General Equipment Inspection.

This equipment is recommended for a Certificate of Inspection to be issued by TSV Consulting

Inspected by: and

Authorised by: S J Wright

Signature:

Signature:

BVNZ Stamp



Issued in accordance with BVNZ General Terms and Conditions of Service

Bureau Veritas New Zealand Limited

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DESIGN CERTIFICATE

CERTIFICATE NUMBERA0909036.....

I DENIS HYLTON SMITH OF TSV CONSULTANTS AUCKLAND LTD being a Chartered Professional Engineer and a Member of the Institute of Professional Engineers of NZ, certify that I have been engaged to evaluate and certify:

Description: Truck Mounted Manco 5500 EWP Scissor Lift Modified for on track use.

Serial Number: 5078-09101-1060

Registration: FCZ 275

TSV Procedure Number: 6001

SWL/Rating At position: 500kg

Design is to AS1418:1-2004
AS1418:10-2004
AS2550.1-2002
AS2550:10-2006



NOTE: Assembly REQUIRES:

- 6 Monthly and 5 yearly inspections by appropriate organisation according ACOP.
- Storage in a suitable environment to avoid corrosion or damage through use.
- Immediate inspection, repair and re-certification if damaged in any way through misuse, corrosion or alike.
- Not to be used for load lifting purposes.

I have exercised reasonable control over the design work as defined above. The evaluation is in accordance with sound and widely accepted Engineering principles and practices, to support loads as will be encountered in use according to the customer's advice and my observations.

The scope of certification is the safe operation capacity and does not underwrite any warranty or component lifespan as stipulated by the manufacturer. This certification is issued based on the fact that all operators have been inducted and trained in the safe operation of the equipment to recognised OSH requirements

The name and qualifications of the Principal Engineer are as follows:

Denis Hylton Smith.....

Signed

C P Eng: 84784

Date.....27-10-2009.....

Expiry27-10-2019.....



MAJOR INSPECTION CERTIFICATE - MANLIFT PLATFORM

A0909036

Certificate No. **A0909036** Date of Issue: **27/10/2009** Expires: **27/10/2019** Order No. **Ross**

Client/Owner Manco **Phone** 2749862
Contact Ross Williams **Fax** 2747393
Address 139 Cryers Road East Tamaki **Mobile**

Make/Model Manco 5500 EWP **Reg No.** FCZ275
Serial No. 5078-09101-1060 **Rated Load** 500 kg **Fleet No.**
Manufacturing Date 1/10/2009 **Hour Meter** 1 **Test load** 625 kg

I, Denis Hylton Smith, being Chartered Professional Engineer CPEng.No. 84784, hold a current valid appointment and hereby certify that I have carried out a major examination of the above lifting platform in accordance with approved Code of Practice for Power Operated Elevating Platforms. The major inspection was carried out in accordance with AS 2550.10-1994 All warning notices and operating labels were in clear English. I have sighted the operating Manual and the full maintenance manual, both in clear English. The mounting of the personnel platform and safety rails was designed and constructed in accordance with NZS 5444:1989 "Load Anchor Points for Heavy Vehicles" I certify that I have examined the unit and that the required load tests have been carried out in my presence. The unit is suitable for a safe Working Load over the full working height. To the best of my knowledge the information contained herein is true and correct.

This is also to certify that we have carried 6 months examination on EWP described above in accordance with the approved Code of Practice for Power Operated Elevating Platforms. The unit is in good serviceable conditions and is suitable for working with rated load over the full working height. Valid for 6 months from the date of issue.

Signature

(Denis Hylton Smith - TSV Auckland LTD)

Work Description:

See attached sheet

Picture:



SPECIAL CONDITIONS

A) The manufacturer nominated above is authorised to perform the alteration / manufacture in accordance with the relevant drawing and conditions set out herein. (B) The unit and in particular the item certified, must be maintained in accordance with good engineering practice as well as the manufacturer's requirements. Record of inspections and maintenance must be kept by the owner in the event of an audit, especially corrosion prevention measures. (C) Operators must be sufficiently trained in the use of the unit and relevant regulations as required. (D) No examination has been made of the unit's mechanical condition. (E) The certification plate, where appropriate, must be permanently attached in a position where it can be easily read and is protected from damage by weather or through vehicle use. (F) This certificate is deemed void if the item certified is modified in any way without the consent of the certifying engineer. (G) Where applicable, design work has been done with methods permitting a rational analysis in accordance with established principles of automobile design. Working stresses do not exceed required maxima to ensure safety and stability of the unit.

H) Platform and platform mountings are to be visually inspected by a competent person for cracks and rust 6 monthly. Any defects are to be reported to the machine owner for further action. A record of inspections is to be kept by the owner. (J) Operators must be sufficiently trained in the use of the equipment and safety procedures in accordance with the HSE Act 1992. (K) The certification plate must be permanently attached in a position where it can be easily read and is protected from damage by weather. (L) This certificate is deemed void if the structure is modified in any way without the consent of the certifying engineer.

CONDITIONS GOVERNING THIS CERTIFICATE:

(1) This Certificate is issued in terms of the IPENZ/ACENZ model conditions of engagement. The TSV Consultants Ltd liability is limited to three times the certification fee. (2) TSV Consultants Ltd shall not be liable unless the claim is made within three years of issuing this certificate. (a) Nor if the vehicle is operated after an accident. (b) Nor if the vehicle is operated in circumstances where it is not in compliance with the statutory obligations under which it operates. (c) If it is not operated in the compliance of the terms and conditions of this design certificate. (3) TSV Consultants Ltd shall retain the copyright to all documents prepared by the company. (4) This certificate is deemed to be issued in Auckland. (5) This certificate is void if: (a) The unit is not operated within the legal limits. (b) The unit is not operated within the limits herein. (c) Change in circumstances invalidates the Certificate. (d) The unit is not maintained to the manufacturer's specifications. (e) The unit is involved in an accident. (f) The unit is modified or certified items repaired after the date of issue of this Certificate.

Complaints: Please note that if you are dissatisfied with any aspect of the certification process performed please contact the above signed Certifier immediately in writing in order to resolve the matter. Please refer to attached pages for additional detail

For internal use TSV only:

Inspection	1	2	3	Travel km		Material	
Hours/Cost	/	/	/	Travel time		Misc	