A.P. Webb Plant Hire ltd.

Ballast Brush Operators Quick Guide Booklet

Version 1

Last Updated: 10/10/2018

The contents of this booklet can change without warning and are as a guide only

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NetworkRail ATKINS

ON-TRACK PLANT
ENGINEERING CONFORMANCE CERTIFICATE

This certificate issued in accordance with RIS-1530-PLT Issue 6.

NAME OF CERTIFICATION BODY The Atkins Notified Body

ACCREDITATION CODE NS

Machine Class/Description	Richter & Muller Ballast Broom Type 0D
Machine Owner	A.P.Webb Plant Hire Ltd
Issue Date	16th June 2017
Expiry Date	16th June 2024
Machine Number:	**99709 000158-4**

First of Class	No
Certificate Number of First of Class	NS/0026/17

Authorised by: John Chitham 2017-06-16 08:56:39

John Chitham
Atkins OTP and OTM Signatory

Official Stamp

The Atkins Notified Body
A UKAS Accredited
Certification Body No:
0162

Reason for Issue and Scope of Work

Previous Certificate:

None, new build.

Scope of work for this certificate:

New build ballast brush, complying with the requirements in RIS 1530-PLT-Issue 6, December 2015.

NetworkRail ATKINS

Deviation Associated with this Certificate

Reference	Tracker Number: 30088
Title	Rail Industry Standard for Technical Requirements for On-Track Plant and their Associated Equipment and Trolleys. RIS 1530-PLT-Issue 6. 5.21.3.3 wheel profile, 5.21.4 Rail wheel spacing.

Previous Certificate Number: None

Approved Maintenance Instructions

ID No.	Title	Issue No.	Date
SB1 Ballast Brush	Instruction Handbook – Operation, Maintenance and Parts for Ballast Brush Type: SB1	03	20/02/2017

Machine Data			
Gross Machine Weight	2940 kg	**Gauge**	**Plant Gauge** (with exceedances)

1. The machine shall not be used outside a possession.
2. The machine exceeds plant gauge in travelling and working mode in the following ways.
   a. Travelling mode - left hand side of the machine: 116mm
   b. Travelling mode – right hand side of the machine: 71mm
   c. The ballast discharge doors can exceed gauge by up to 490mm when in working mode, depending on the position of the doors.
3. Rubber skirts may exceed Plant gauge 150 mm below gauge line. A site survey shall be undertaken to assess potential damage to infrastructure equipment prior to use.
4. This machine may be used with adjacent lines open to traffic, only if a safe system of work to be adopted has taken account of gauge exceedance.
5. The side doors may be required to be opened prior to beginning working; access to the side of the machine may be required. Control of the adjacent line on the side of the machine which requires the doors to be opened shall be under the control of the Engineering Supervisor.
6. This machine is suitable for use under the live OLE when used in conjunction with a safe system of work determined and authorised in accordance with the requirements of GE/RT8024.
7. Machine not permitted in live conductor rail areas.
8. The limitations of the host RRV shall apply to this machine when being propelled or powered by an RRV.
9. Machine will not activate train operated points.
10. Machine does not have a load carrying capability.
11. The machine is fitted with a centre load lifting point, SWL: 3050kg

The Operator has overall responsibility to ensure that the correct procedures are applied!!!

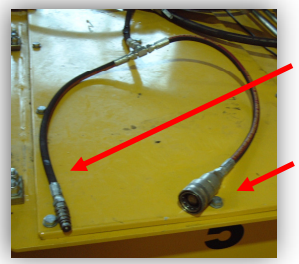
Ballast brushes are designed for the removal of ballast from the sleeper fastenings to aid in the process of tamping. It also serves a secondary role of leaving a clean and tidy profile of sleeper and rail whilst helping to build a ballast shoulder.

Dipper mounted

Tow bar connected

Whichever type of brush you use, it is not designed to move large deposits of ballast and so a profile blade/bucket MUST be used prior to brushing if damage to the brush will occur due to forcing the brush to move excessive ballast!!

The brakes are released using hydraulic feed for the quick release. This connection must be made with the engine switched off as it is a permanent feed whilst the engine is running. The other option is the hydraulic park brake fitted to the JS which can be used as an alternative.



QH fitting

JS park brake

Only brushes fitted with a removable tow bar have independent brakes and therefore require a brake test. Newer brushes only have 1 axle and are therefore exempt from brake test requirements.

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The rotation of bristles is achieved via two methods, dependant on the brush type ..... constant pump or crowd circuit. The easiest method of establishing which is which is to look for a RED hose which denotes a constant pump feed. If the brush doesn't have a red hose then the bristles are fed from the crowd circuit along with the conveyor belt.

Colour & sequence chart for attaching hydraulic attachments

1st	=	Return to tank
2nd	=	Leak off
3rd	=	Constant pump
Grab		Grab close White tab to cable tie

Removal is the reverse of fitting

Inspect, report and attempt repair of any damage to any fittings or pipes, even on removal

This chart shows the correct connection and disconnection sequence for hydraulic hoses. The crowd operated bristles may still have a BLUE return to tank and/or ORANGE leak off which must always be fitted first and removed last. This will prevent possible damage to components due to tracked hydraulic pressure having nowhere to go.

If using a brush in areas of 3rd rail, ***DO NOT OFFSET THE WHEELS!*** Instead, remove the bristles on the end of the shaft that sits over the 3rd rail. This can be done using a 10mm socket if it hasn't been done already.

The ballast brush performs differently dependant on ballast type i.e. old ballast with no dust will move easier than new ballast with dust acting as a binding agent. Travel speed should be set accordingly so as not to choke the bristle shaft and stall the belt as the ballast will need to be cleaned out before restarting. Max non-working travel speed is 10mph.

The host machine should never be on/off tracked with the ballast brush attached!!

The MC competence covering the use of the brush is Group 4 — Ballast Management and will need Crane Controller supervision if lifted using chains.