



# Multi Bale Handlers

Models 1412 & 1413

Instruction Manual  
& Operating Guide



# EC Declaration of Conformity

in accordance with BS EN ISO/IEC 17050-1:2004



David Ritchie (Implements) Ltd.,  
Carseview Road, Forfar, Scotland DD8 3BT

declare that:

Equipment: ..... **Multi Bale Handler** .....

Model No: ..... **1412 / 1413** .....

Serial No: .....

in accordance with the following directive:

**2006/42/EC** Conforms with the essential requirements of the Machinery Directive  
and its amending directives

has been designed and manufactured to the following specifications:

**BS EN ISO 12100 -1: 2003 Safety of Machinery** - Basic concepts, general principals for design - Basic terminology, methodology.

**BS EN ISO 12100 -2: 2003 Safety of Machinery** - Basic concepts, general principals for design - technical principals and specifications.

**BS EN 982: 1996**  
Safety of machinery. Safety requirements for fluid power systems and their components - Hydraulics

**BS EN ISO 4254-1:2009**  
Agricultural machinery - Safety - Part 1: General requirements

**BS EN ISO 13857:2008**  
Safety of machinery - Safety distances to prevent hazard zones being reached by upper and lower limbs.

**BS EN ISO 14121-1: 2007**  
Safety of machinery - Risk assessment - Part 1: Principles

Signed:- 

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Robert Ritchie Al agr E  
Agricultural Sales Director

at:- David Ritchie Implements Ltd. Forfar, UK  
on:- 6th February 2014

## Multi Bale Handler Specification

	1412	1413
Overall Length .....	525mm	525mm
Overall Width .....	1660mm	1660mm
Folded Width .....	1420mm	1420mm
Overall Height .....	1540mm	2270mm
Weight (less Quick Release brackets and Hoses) .....	285kgs	340kgs

The continuous A-weighted sound pressure level does not exceed 70 dB(A)

## Tractor Loader / Telescopic Handler Requirements

One Double Acting Spool Valve

Minimum Oil Flow ..... 30 Litres/Minute

Minimum Oil Pressure ..... 165 Bar

## Safety information

- Allow only experienced tractor drivers to operate this machine.
- The implement is only suitable for handling round bales up to 6 feet in diameter and midi and large square bales of either straw or hay.  
**Note:** The implement is not designed for handling silage.
- Only operate this machine from the tractor seat (work station).
- Lower the implement to the ground and switch off the tractor engine before approaching the working zone of the implement.
- Operate only when bystanders are at a safe distance.  
Under no circumstances should anybody work underneath or in the near vicinity of a suspended bale.
- Before attempting any maintenance, lower the machine to the ground, turn off the tractor engine and release any residual hydraulic pressure to the rams by operating the spool valve in both directions.
- When detached from the telescopic handler/tractor loader the implement should be parked in the upright position on even level ground.
- When quick release brackets are fitted to the backplate always use the tractor to lift the implement. If quick release brackets are not fitted the multi bale handler can be lifted safely by attaching a sling to the centre frame top horizontal cross member, Fig 1.  
Always lift slowly to check stability.



**BEWARE OF OVERHEAD POWER CABLES!**



# General Overview

Ritchie **Multi Bale Handlers** are designed to handle both midi and large square bales and round bales up to 6 feet in diameter.

**Note:** The combined weight of bales to be lifted should not exceed the limits set out below:-

**Model 1412 - 1200 kgs** in total

**Model 1413 - 1200 kgs** in total

The Bale handler is powered by double acting cylinders for positive control.

The Multi Bale Handler comes complete with a suitable backplate for welding on the appropriate quick hitch brackets.

These brackets must be set no less than 400 mm apart laterally about the centreline of the backplate and can be provided by your local Ritchie dealer.

Hoses are not supplied with the handler, but your local Ritchie dealer can fit the correct hose lengths to suit your material handler or front end loader.

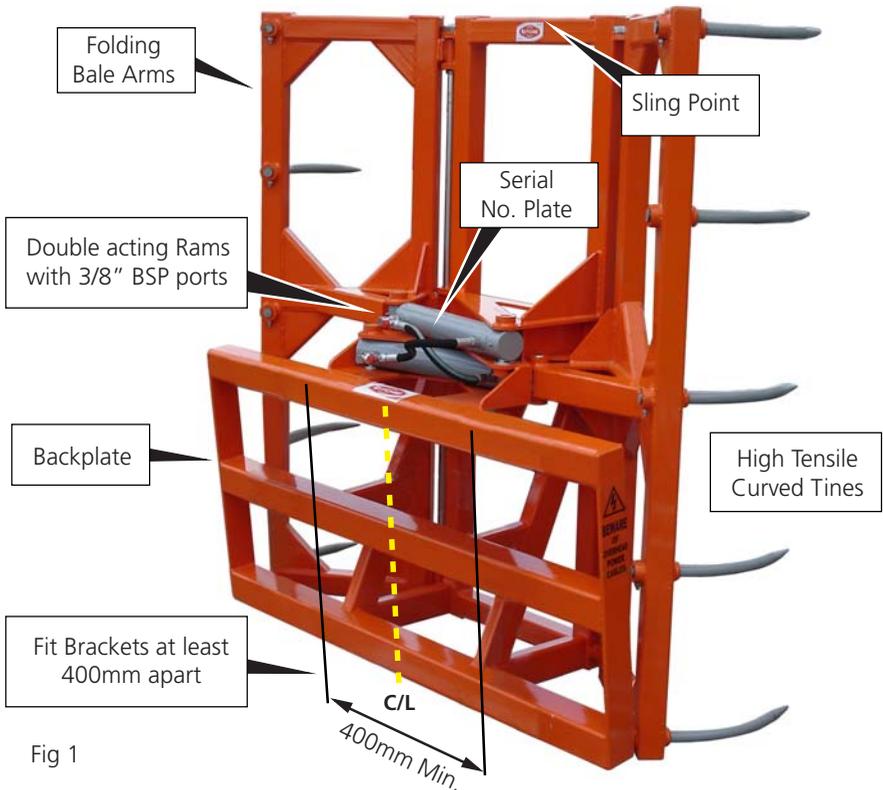


Fig 1

## Attaching to Tractor

Fit appropriate quick release brackets to the Multi Bale Handler backplate to suit the requirements of the tractor loader or material handler.

Fit 3/8" BSP (2 wire) hydraulic hoses to the rams and to the tractor spool valve.

**Hose Rating - SAE 100 R2 AT • DIN EN 853 2SN**

Working Pressure - 330 bar (4800 psi). Min. Burst Pressure - 1320 bar (19150 psi)

## Important

Run the system to 'bleed off' any air and operate the Multi Bale Handler to check the movement corresponds with the desired movement of the spool valve lever in the tractor cab. Rotate the supply hoses if required.

## Operation

Use tele-handler/tractor controls to pivot the Multi Bale Handler to suit the bale position. If lifting more than a single bale - position the handler to allow curved tines to enter each bale. Operate the tele-handler/tractor spool lever to close arms around the bale ensuring the tines penetrate fully.

Always lift slowly to check stability.



Round Bale lift capacity:-

Model 1412 - 2 Bales

Model 1413 - 3 Bales

Fig 2



Quadrant Bale lift capacity:-  
Model 1412 - 3 Bales  
Model 1413 - 4 Bales

Fig 3

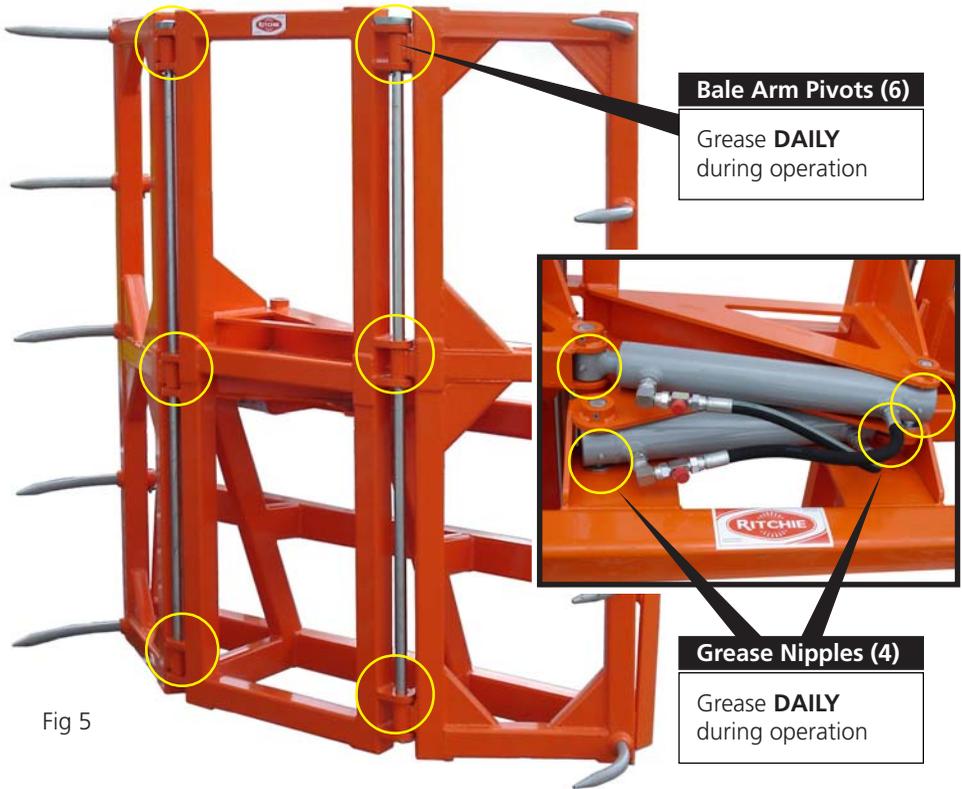


Hesston Bale lift capacity:-  
Model 1412 - 2 Bales  
Model 1413 - 3 Bales

Fig 4

# Maintenance

**Important - Before commencement of maintenance work, lower the implement to the ground, switch of tractor engine and remove the ignition key.**



## Hoses

**Check Hose connections at ram and at spool valves for any sign of hydraulic oil leakage. Any minor leak may result in a bale slipping out of the machine's grip. Do not tighten a hydraulic fitting whilst the hydraulic system is pressurised.**

Check Hoses periodically for signs of wear or damage. Replace as necessary.

When in storage - Lift hoses away from ground and cover ends to prevent dirt from penetrating the hydraulic system.

If draining hydraulic fluid from hoses - turn off the tractor engine and release any residual hydraulic pressure to the ram. Always use a container and dispose of safely, with due consideration to the environment.



*the perfect partner*

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