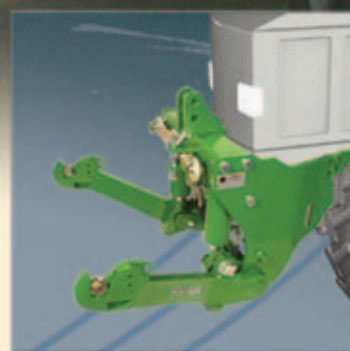


HE-VA Front Linkages & PTO's

- Always in front



**HE-VA**
LINKAGES & PTO'S

HE-VA Linkage Technology

The difference is in the detail

Whatever front implement you intend to use, HE-VA have the ideal front linkage for the job with lift capacities from 1.5 to 5.5 tons.

What's more, with the different models which are in our list, HE-VA has a front linkage to suit every tractor with over 800 different models available. All HE-VA linkages incorporate the Vertical Fold System (VFS) allowing the link arms to fold fully back when not in use improving maneuverability and safety.

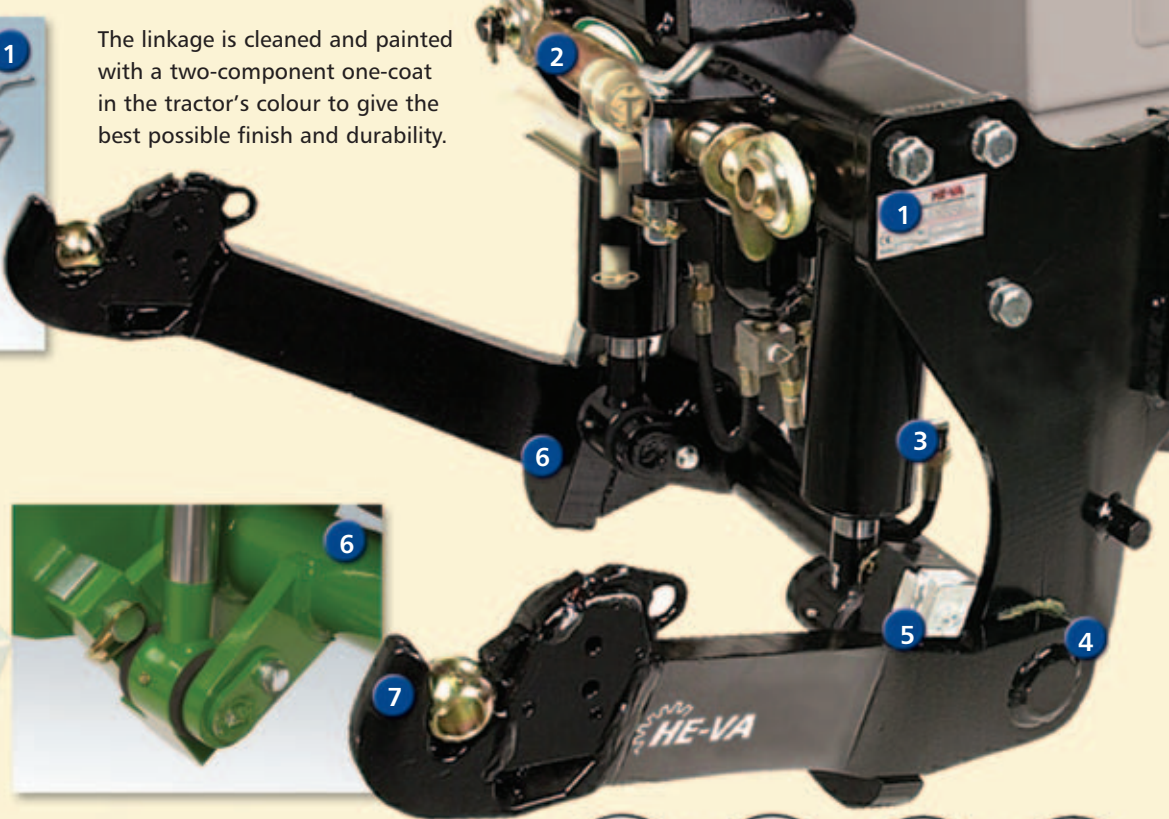
Fitting is simple and quick, as the whole side plate can be removed. Also on most models, the linkage bolts onto the front of the tractor as well as the side giving more secure fixing to the tractor.



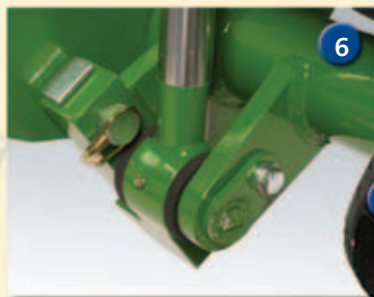
1 The linkage is cleaned and painted with a two-component one-coat in the tractor's colour to give the best possible finish and durability.



2 Top link and balls in storage position



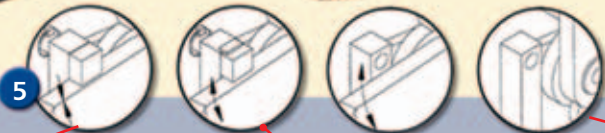
6 Ball joint and seals on lift ram ends - ensures any twisting force from a front implement is not applied to the rams, damaging seals.



7 Cat. II linkage hooks on 1.5, 2.1, 2.5 and 3.6 ton linkages

Cat. III linkage hooks on 5.5 ton linkage.

Distance between link arms (balls) is 825 mm.

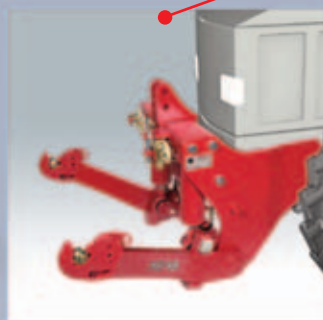


5 Fixed arm position

Semi floating arm position

Fully floating arm position

Transport position



The simple eccentric pin system allows the operator to set the linkage for the job in hand. In use, the operator has the choice of three different positions, fixed, semi-floating using the eccentric pin or fully floating without the pin. When not in use the link arms can be put into transport position using the Vertical Fold System (VFS), by placing the pin under the arm and retracting the lift rams completely.



HE-VA selector valves

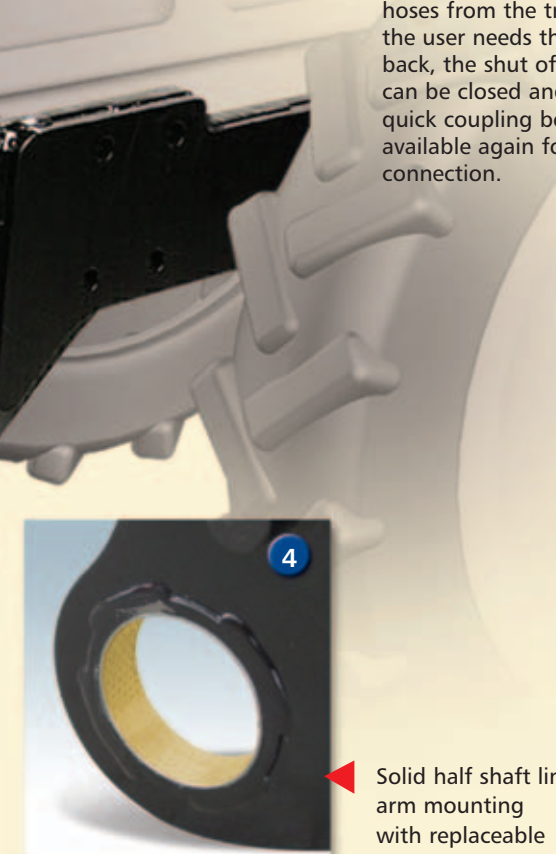
All HE-VA linkages come equipped with hydraulic (selector) shut off valves as standard. The valve handle is located close to the cab rear window, in most cases, for easy access from the tractor seat. The shut off valves allow the user to lock off the linkage in a fixed position and use the linkage spool for another operation.



HE-VA hydraulic connection

Where possible HE-VA linkages use a "Banjo" fitting to tee into the tractor hydraulic

system so that the user never needs to disconnect the linkage hydraulic hoses from the tractor. If the user needs the outlet back, the shut off valves can be closed and the rear quick coupling becomes available again for another connection.



Solid half shaft link arm mounting with replaceable link arm bushes



Link arm movement 50 mm at ball end.



Fully folded position.

OPTIONS

SHOCK ABSORPTION KIT

Consists of: Single accumulator, preloaded to 100 bar (mounted on lifting side). This is designed to protect the front linkages and tractor body against damage caused by bouncing in transport.

Recommended when driving with heavy front implements and/or without suspension on the tractor front axle.

Can be mounted on both single and double acting front linkages.



SPRING SUSPENSION KIT

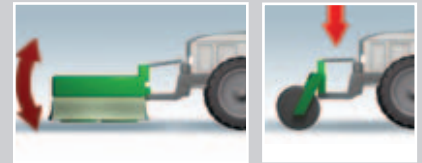


Consists of: Twin accumulators, preloaded to 15 bar (1 mounted on lifting side and 1 on lowering side with pressure gauge on lowering side).

Also recommended during work, for protection of front implement linkage and tractor when hitting large obstacles, rocks or on uneven ground.



Recommended when weight needs to be transferred from the tractor to the front implement (or from the implement to the tractor) in work the gauge shows the transferred pressure.



SHIFT-CONTROL



In some cases there may not be enough spools on the rear of the tractor to supply all the requirements for the front. Double or triple shift control is available to overcome this problem.

Both systems include a solenoid valve block mounted on the linkage and switch in the cab to swap between linkage operation and one or two single or double acting spools on the front of the tractor.

DOUBLE ACTING SERVICE

Double or single acting oil spool services can be mounted on the linkage as an option. Long hoses with quick-coupling probes are included when supplied.



POSITON DETECTOR KIT

Massey-Ferguson 6200-8200 & 6400-8400 can be equipped with position detector kit and electrical lift/lowering push buttons mounted on the Front-Lift's top link bracket. This is only possible when the tractor is equipped from factory with SMS joystick control of hydraulics, Datatronic II or III and Dual control switch rear.



CONTROLLING KIT

Case IH CVX, Steyr CVT, MF 64-8400 & JD 6020 / 6030 / 7020 / 7030 / 8020 / 8030 & Claas Arion, Axion can be equipped with electrical lift/lowering push buttons mounted on the Front-Lift.



POSITION STOP



The travel of the linkage arms is controlled by a proximity sensor mounted on an adjustable bracket. This enables the link arms to be stopped in a selected position.

When used in downward travel a desired working depth is obtained or when used in upward travel a desired lifting height is obtained.

An onboard switch in the cab enables the system to be turned off and on remotely.

TORSION BAR

The Torsion Bar is recommended for situations where the equipment exerts extremely high torsion or side pressure on the linkages arms e.g. buck rake, swinging plough press, snow plough/scrapper, or hedge/verge cutter.



HE-VA Integrated Linkages – a range for all farms

With a product range of about 800 different models, there will always be a suitable linkage for your tractor.

Linkage 15.01

1500 kg
at 190 bar



Designed for small to medium sized tractors from 20 kw (28 hp) up to 60 kw (83 hp). The 1.5 ton linkages are integrated into the design of the tractor providing all the benefits of their large counterparts.

- **Single acting (double acting option)**
- **4 link arm positions:**

In work - rigid, semi-floating, fully floating. In storage - vertically folded

- **Standard with Cat. II quick release ball hooks and link arm geometry**
- **Most models available with and without PTO**
- **Selector valves**
- **T's into spool valves (on most tractor models)**

Linkage 25.01

2500 kg
at 190 bar



The 2.5 ton linkages once again are designed closely around the tractor sub-frame to provide strength, simple fitting and become an integral part of the tractor. Recommended for tractor sizes from 50 kw (69 hp) and up to 95 kw (131 hp).

- **Single acting (double acting option)**
- **4 link arm positions:**

In work - rigid, semi-floating, fully floating. In storage - vertically folded

- **Standard with Cat. II quick release ball hooks and link arm geometry**
- **Most models available with and without PTO**
- **Selector valves**
- **T's into spool valves (on most tractor models)**

Linkage 36.01

3600 kg
at 190 bar



The 3.6 ton linkage is the most popular in the HE-VA range, individual linkages fit closely around the tractor sub-frame providing strength without restricting other tractor functions. Recommended for tractor sizes from 70 kw (97 hp) and up to 150 kw (207 hp).

- **Single acting (double acting option)**
- **4 link arm positions:**

In work - rigid, semi-floating, fully floating. In storage - vertically folded

- **Standard with Cat. II quick release ball hooks and link arm geometry**
- **Most models available with and without PTO**
- **Selector valves**
- **T's into spool valves (on most tractor models)**

Linkage 55.01

5500 kg
at 190 bar



The 5.5 ton linkage is the largest in the HE-VA range providing the strength required for the work rates associated with larger horsepower tractors whilst the design avoids limiting other tractor functions. Recommended for tractor sizes from 110 kw (152 hp) upwards.

- **Double acting**
- **4 link arm positions:**

In work - rigid, semi-floating, fully floating. In storage - vertically folded

- **Standard with Cat. III quick release ball hooks and Cat. III/II balls. Cat II link arm geometry**
- **Most models available with and without PTO**
- **Selector valves**
- **T's into spool valves (on most tractor models)**

Front
PTO
UNITS



Front PTO power is available for most tractor models and linkage sizes. The PTO units have a completely self-contained oil supply and use a 'soft start' electro hydraulic clutch to smoothly engage the power. A replaceable oil filter is incorporated into the gearbox for servicing.

- **1000 rpm @ 2100 engine revs**
- **35 mm (13/8") 6 spline shaft**
- **Anti-clockwise rotation (looking at the front of the tractor)**
- **Maximum power transfer continuously 125 kw (173 hp)**
- **Complete Mounting Kit**
- **Note: not all our linkages can be retro-mounted with PTO - please ask**
- **Holds 1.85 litres oil**

STANDARD LINKAGE



The 2.1 ton standard linkage is a simple but strong unit, designed for 30 kw (41 hp) to 90 kw (124 hp) tractors. Adapted side brackets for almost all tractor models can be supplied as an optional extra.

- **Single acting (double acting option)**

- **Selector valves**
- **Standard with Cat. II quick release ball hooks and link arm geometry**
- **Short lift arms with two possible cylinder positions allows a lifting arc of 845 mm**



HE-VA
LINKAGES & PTO'S

HE-VA carry the power - where you want it

PTO mounting kit: bolts, rubber coupler, engine to gearbox PTO shaft, guard, clamps, cable and electronic switch.



HE-VA PTO's can be fitted to most linkages.

FRONT PTO TECHNOLOGY AT IT'S BEST



The PTO gearbox is connected to the tractor crankshaft pulley by means of a rubber damper preventing vibration. Similarly the "soft start system" uses an electro hydraulic multi-plate clutch inside the gearbox to provide smooth power engagement to the front PTO. Oil pressure for the clutch is supplied by an intergrated pump in the gearbox which is driven by the input shaft.

Where possible HE-VA use the tractor manufacturers own PTO engagement switch so that it integrates neatly into the switch layout in the cab.



HE-VA PTO units are completely self contained using standard transmission oil and a replaceable oil filter.

The gear reduces the rotation 2.1 to 1 (2100 engine rpm = 1000 PTO rpm) and it turns anti-clockwise when you look at the front of the tractor.

The shaft is 1 3/8" (35mm) with 6 splines DIN 9611.

The 'heavy duty' gearbox can transfer a maximum of 125 kw (173 hp) continuously and even more in peak loads.



HE-VA
LINKAGES & PTO'S

HE-VA for Choice

MULTI FIT LINKAGE



The 4 or 5.5 ton Multi-fit linkage incorporates all the standard features of 2.5 to 5.5 ton linkages but is manufactured without full length side plates. This multi-purpose linkage has short side plates with multiple attachment holes so that it can be adapted to fit various machines and tractors where a three point linkage is required, e.g. trailers, slurry tankers & 4 wheel drive vehicles

- *Double acting as standard*
- *Cat. II geometry, with Cat. III quick release ball ends and Cat. III/III balls*
- *Cat. II top link included*



FRONT WEIGHT FRAMES



Front weight frame, 600 kg. To carry the tractors own front weights hooked directly onto the frame - (specify weight type on order). Including removable support stand and pins.



Front weight frame, 2000 kg to carry the tractors standard weights and weight carrier block. Including removable support stand and pins. Painted in the tractors colour.

FRONT WEIGHTS



Available from 400 kg concrete to 1200 kg steel.
The front weights are painted standard black/grey.
Three-point mounted - Cat. II with pins and locking pins.

A-FRAMES



For fast implement hitching and unhitching.
(Picture shows both the section that fits onto the tractor and the part that fits onto the implement).



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YOUR LOCAL HEVA DEALER

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