

# OPICO'S FRONT LINKAGES & PTO'S



The perfect lift for  
your tractor



*Profit from our knowledge*

# OPICO'S Linkage Technology

## The difference is in the detail

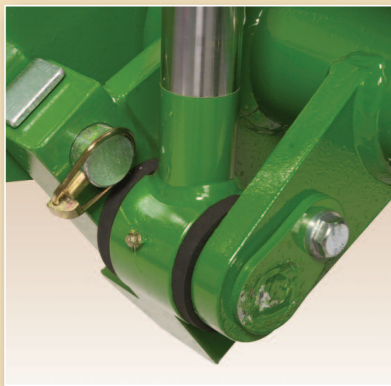
Whatever front implement you intend to use, OPICO have the ideal front linkage for the job with lift capacities from 1.5 to 5.5 tons.

What's more, OPICO have a front linkage to suit every tractor, with over 800 different models available. All OPICO linkages incorporate the **Vertical Fold System (VFS)** allowing the link arms to fold fully back when not in use improving manoeuvrability and safety.

### Maximum lift capacity

Lift capacity is rated at the hook and ball end. Cat. II quick release linkage hooks on 1.5, 2.5 and 3.6 ton linkages. Cat. III linkage hooks on 5.5 ton linkage. Distance between linkarms (balls) is 825mm.

### Quality that lasts

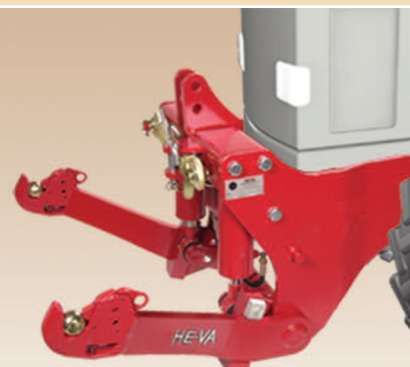


Ball joint and seals on lift ram ends - ensures any twisting force from a front implement is not applied to the rams, damaging seals over time. Double acting rams fitted as standard on all sizes of linkages.

The linkage is painted with a two-component primer and topcoat to give the best possible finish.

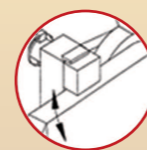
### VFS Arm positions

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.



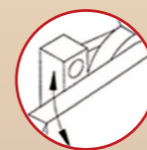
#### Fixed arm position

In the fixed arm position the arms cannot move independently, this ensures a constant working height and level set by the hydraulic rams.



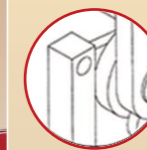
#### Semi floating arm position

Independent link arm movement 50mm at ball end.



#### Fully floating arm position

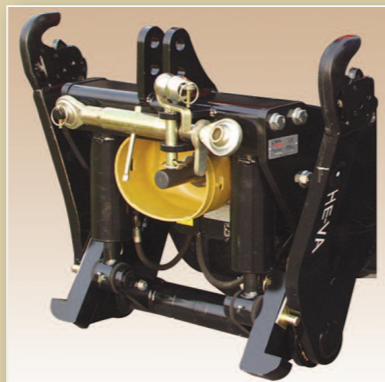
Free independent movement at ball end.



#### Transport position

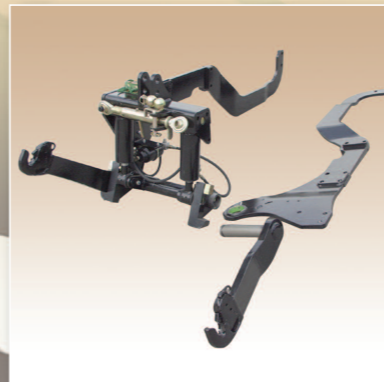
Transport position ensures the linkage is as close to the tractor as possible during transport.

### Compact storage



Top link and balls in storage position. (VFS) Vertical Fold System allows the linkage arms to fold behind the front of the linkage when not in use.

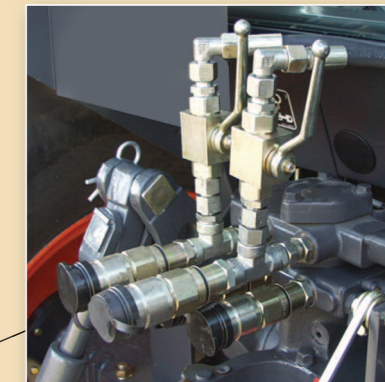
### Quick and easy fitting



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.

The front linkage side plates are designed to match the individual tractor model and provide support suitable for all lift capacities and giving more secure fixing to the tractor.

### OPICO hydraulics



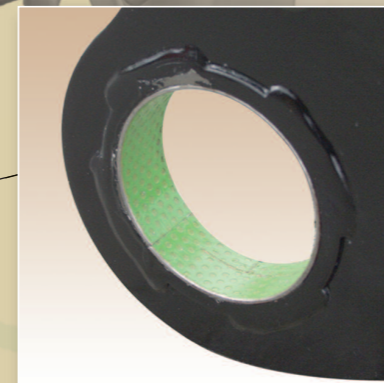
#### Selector valves

All OPICO 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 hydraulic service for another operation.

#### Hydraulic connection

Where possible OPICO 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.

### Replaceable bushes



Solid half-shaft link arm mounting with replaceable link arm bushes and bush holder.

# OPICO carry the power -where you want it



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

## Front PTO technology at its 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 integrated pump in the gearbox which is driven by the input shaft.

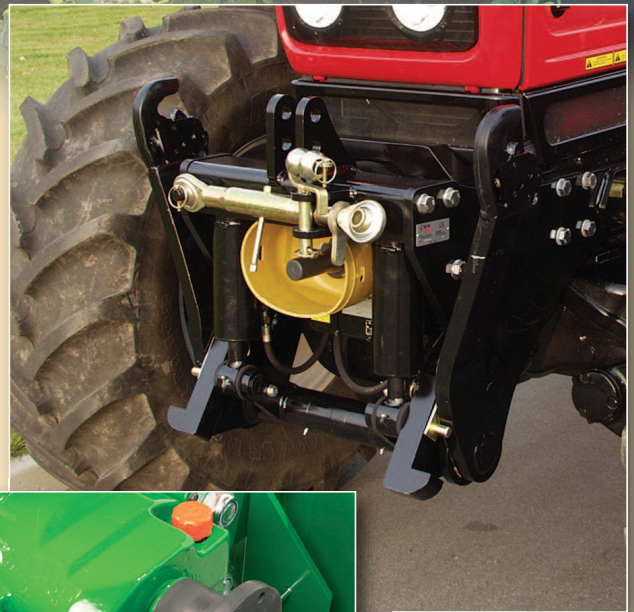
Where possible OPICO use the tractor manufacturer's own PTO engagement switch so that it integrates neatly into the switch layout in the cab.

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

The front PTO gearbox works at 1000 PTO rpm and it turns anti-clockwise when you look at the front of the tractor.

The shaft is 1<sup>3</sup>/<sub>8</sub>" (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.



**OPICO PTO's can be fitted to most linkages from 1.5 to 5.5 ton lift capacity.**

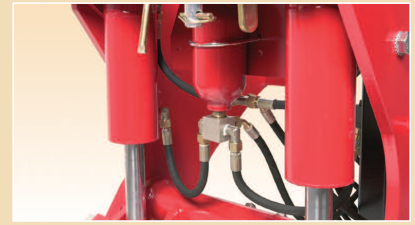


# OPICO for options

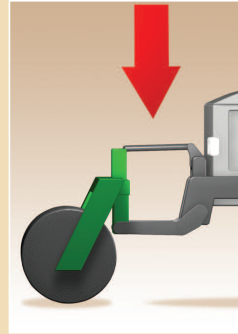
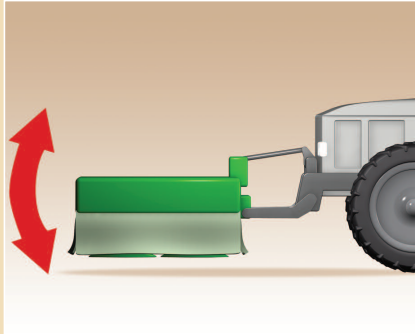
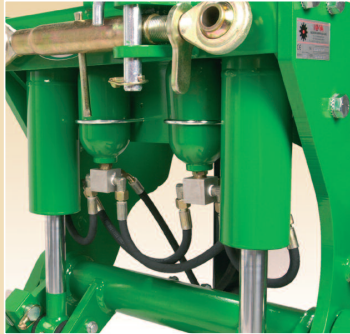
## Shock absorption kit

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).

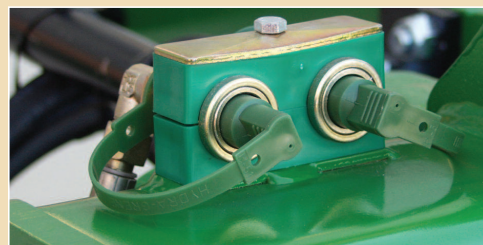
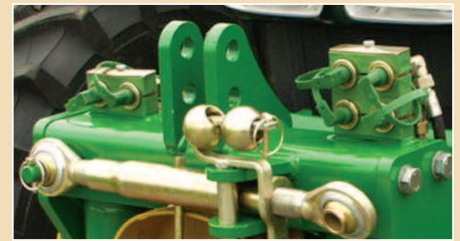
Recommended when weight needs to be transferred from the tractor to the front implement (or from the implement to the tractor). In work the gauge shows the transferred pressure.

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

## Shift-control double / Shift-control triple

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 a 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 (requires additional hydraulic service or shift control option).

## 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. buckrake, swinging plough press, snow plough/scrapper, or hedge/verge cutter.



## HOLDERS for relief springs

A relief spring/chain hook option is available so the machine weight can be carried by the tractor. e.g. a front mower.



## Electronic linkage control

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.

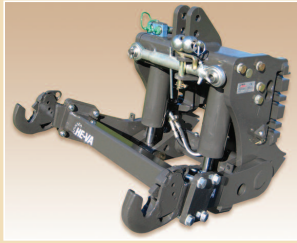
Case IH CVX, Steyr CVT, MF 64-8400 & JD 6020 / 6030 / 7020 / 7030 / 8020 / 8030 can be equipped with electrical lift/lowering push buttons mounted on the Front-Lift's top link bracket.

The range of tractor models this kit is available to fit is expanding, please ask for details.





# OPICO for choice



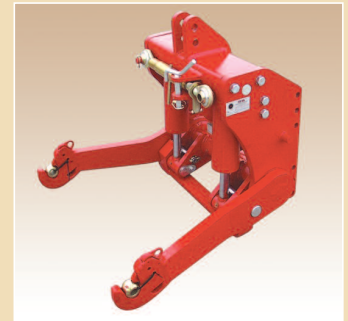
## HD buckrake linkage

The HD Buckrake/Snow Ploughing linkage has been specially developed for situations where the machinery produces high stress levels on the linkage. The package consists of:

- 5.5 ton linkage frame with 4 ton lift capacity to protect the tractor
- Double acting hydraulic service
- Torsion bar to link the linkage arms together

## Universal linkage

The Universal 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.



## Front weights



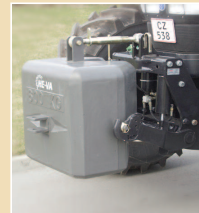
### Front weight frame, 600 kg

To carry the tractor's own front weights hooked directly onto the frame - (specify weight type on order). Including removable support stand and pins.



### Front weight frame, 2000 kg

Carries the tractor's standard weights and weight carrier block. Including removable support stand and pins. Painted in the tractor's colour.



### Front weight blocks

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.

## Linkage Specifications

Lift capacity	Recommended tractor size	Hydraulic Cylinders	Arm Thickness	Half Shaft	Hook Type
1.5 ton	28hp to 83hp	30mm rod, 60mm bore	25mm	40mm diam	Cat II
2.5 ton	69hp to 131hp	40mm rod, 80mm bore	30mm	60mm diam	Cat II
3.6 ton	97hp to 207hp	40mm rod, 90mm bore	35mm	60mm diam	Cat II
5.5 ton	152hp +	40mm rod, 100mm bore	40mm	80mm diam	Cat III

## Front PTO units

Power Transmission Rating	PTO Speed	Clutch	Shaft	Oil Capacity
200hp	1000rpm	"Soft Start" engagement, hydraulically engaged multiple clutch plate in oil bath	35mm 6 spline	1.85l

PTO direction clockwise if viewed from the tractor seat.

**To obtain more information showing an OPICO Linkage fitted to a specific tractor model please contact us.**

YOUR LOCAL OPICO DEALER

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