

# ***FIELDMASTER***®

## **VORTEX ROTARY DRAIN DIGGER/CLEANER**



## **OWNERS/OPERATORS MANUAL & SPARE PARTS LIST**

Issue Date: September 2011

## Introduction

Your Vortex Drain Digger/Cleaner has been designed to do a range of drainage & trenching work to your satisfaction. This list of instructions covers the basic requirements for operation and maintenance ensuring good service if carried out.

## Cautionary Advice

Special safety features are incorporated in the design of this machine for your protection but careless operation can still cause damage or injury.



DON'T let familiarity trap you into danger.

**CAUTION!** DON'T attempt to clear away any obstruction whatever while the machine is operating or spinning to a stop. KEEP WELL AWAY from machine if blade rotor is spinning. SPECTATORS (particularly children) must be kept well away while machine is operating as discharged material can fly further than thought.

MAKE REGULAR INSPECTION of the blade rotor assembly for fracture and be sure hoe blades and blade plate are securely attached. Replace if any irregularity or excessive wear shows.

## Setup and Operation

The Vortex is attached to the tractor 3 point linkage in normal manner. The telescopic driveshaft can then be fitted. Two short blocks (10"/250mm) placed underneath lower link pin mounts will assist in keeping implement level for easier attachment.

Fit stabiliser bars or chain,

Fit the drive shaft securely to the tractor P.T.O. and Vortex (clutch) input shaft. Ensure both splined yokes are securely fastened to the splined shafts on both the tractor and the implement. Secure drive shaft cover chains to prevent cover rotation. See further notes on driveshaft fitting below.

During transport fit top link to fixed pin position. During operation fit top link into slot position to allow for contour movement.

Set discharge chute at required deflection angle and fasten.

Run up at 540 PTO revs before moving forward with lower link arms angled temporarily to allow entry of cutting blades to the desired trench depth. Once the penetration is achieved, raise the lower link arms so the machine is level before moving forward. This is important for correct alignment, cutting tip angle and blade wear.

For standard cutting setting adjust depth control shoe/leg to same depth as full cutting diameter. When placed in this position set draft control on lower link arms/hydraulics to maintain chassis level.

Initial cut depth of up to 300mm may be obtained, however further cuts over the drain will deepen the trench if required.

## The Telescopic Drive Shaft

There is a wide range of tractors and the horizontal distance between the power take off shaft and the linkage frame varies considerably. Taking for example the minimum and maximum conditions, safe working lengths of the driveshaft should be assessed as follows:

Once shaft is fitted to the machine or tractor raise and lower the machine fully on the linkage arms. At no time should the shaft be fully compressed. During travel when at its shortest length allowance should be made for a further 40mm of compression, but take care in cutting to length so that at the longest point there is still at least 100mm of contact between inner and outer drive shaft tubes.

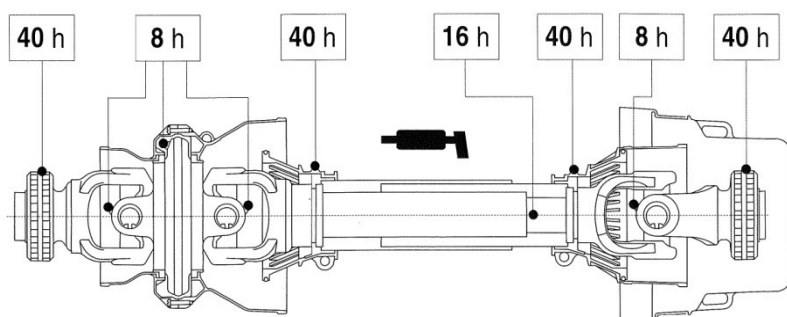
## Routine Servicing & Maintenance

Like all machinery (and motorcars), your Fieldmaster implement must be routinely serviced and checked as follows:

After first 10-15 hours of use: check all rotor shaft bearing and hoe blade fixing bolts. These will tend to bed in after initial use and must be checked. Check main rotor shaft blade plate nut is tight and locking cotter pin is securely in place

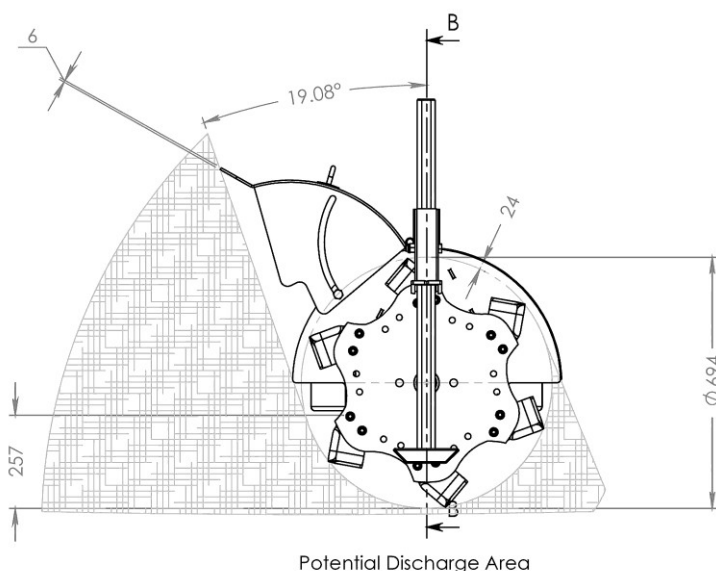
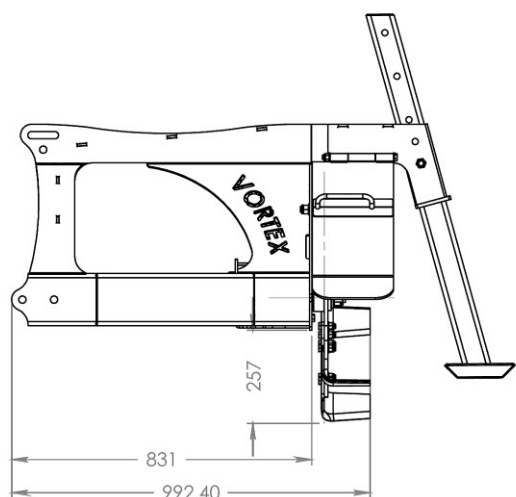
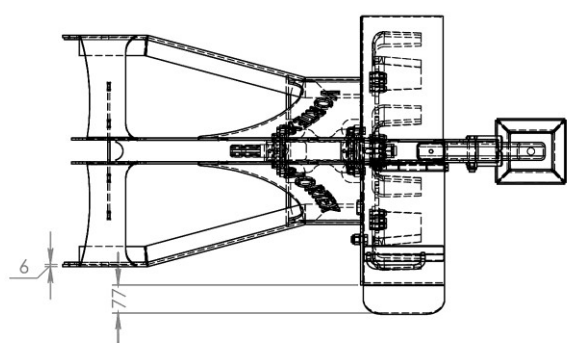
Rotor shaft bearings: Grease every 20 hours with multipurpose grease. Do not over grease.

Drive shaft: Grease driveshaft on new machine prior to commencing work and daily when in use. The sliding shaft tubes must be fully pulled apart to correctly lubricate with grease. Failure to lubricate the tubes will 'lock' the telescoping tubes during use. Also check driveshaft universal joints. See greasing recommendation diagram below.

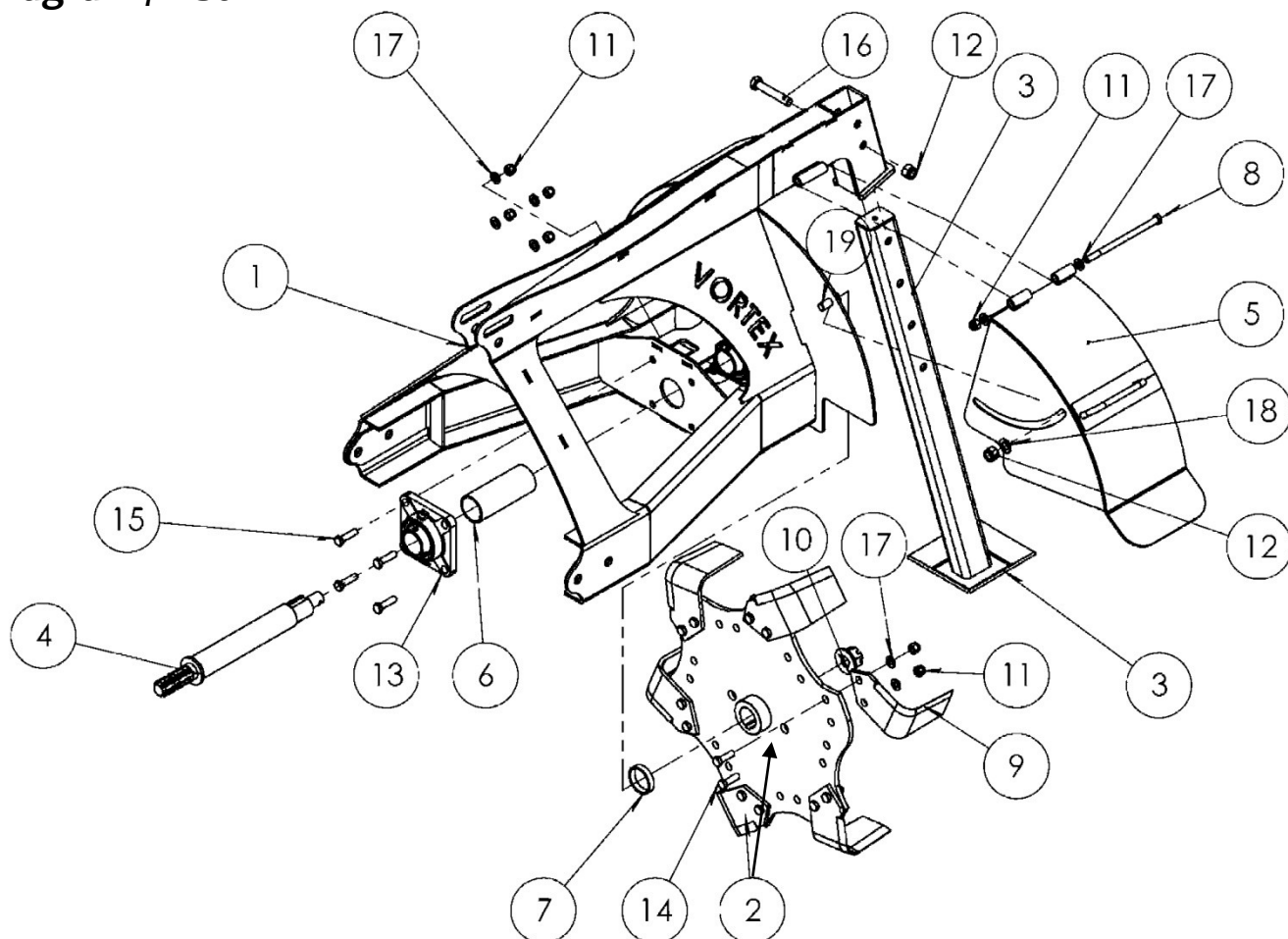


FAILURE TO ATTEND TO SERVICING AS SHOWN ABOVE WILL ONLY CAUSE PREMATURE FAILURE OF SOME COMPONENTS. THIS TYPE OF FAILURE IS NOT COVERED BY WARRANTY.

## Overall Dimensions / Plan



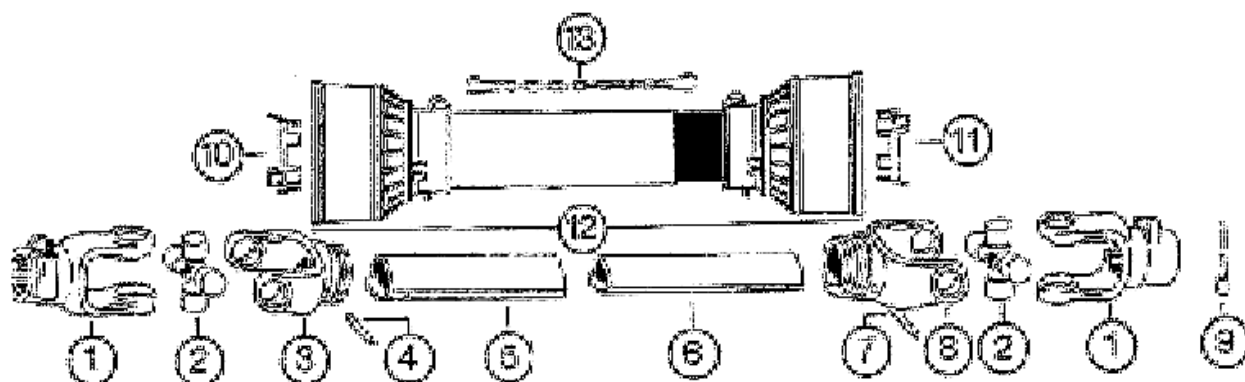
## Parts Diagram / List



## Parts Listing

Product Code	Description	Quantity Total	Drawing No
11.008	Gearbox Hub Castle Nut & Washer	1	10
A6086007	64hp - A6 Driveshaft (1.0m o/a)	1	Not shown
5042	Lower Link Pin - Bolt on	2	Not shown
2251	Linkage Bush (1-2)	2	Not shown
5040	Top Link Pin	1	Not shown
5603	Lynch Pin	4	Not shown
408001	Shaft tube spacer	1	6
404001	Vortex ditcher main body	1	1
404002	Vortex ditcher blade flange/disc	1	2
404003	Vortex ditcher guide leg	1	3
404004	Vortex ditcher main shaft	1	4
404005	Vortex ditcher discharge chute	1	5
7002	Vortex ditcher hoe blade	6	9
2467	Vortex ditcher blade bolt/nut	12	14
1210AS	Vortex ditcher shaft bearing housing	2	13
1210B	Vortex shaft bearing	2	13
2190402	PTO Cone with flaps	1	Not shown
01.473	Manual holder - small (A5)	1	Not shown
5039	Guide Leg pin	1	16
0225 6807	Hinge bolt	1	8

## Driveshaft & Clutch Parts



Product Code	Description	Quantity Total	Drawing No
507060351	Yoke quick release	2	1
A6086007	64hp - A6 Driveshaft (1.0m o/a) complete	1	As above
41206	Universal Joint	2	2
204066851	Outer Tube yoke	1	3
34102000	Outer roll pin	1	4
12512	Triangle tube outer (per mtr)	1	5
12509	Triangle tube inner (per mtr)	1	6
4341043000	Inner roll pin	1	7
204066852	Inner tube yoke	1	8
403000001	Release Pin	2	9
25506005	Guard tube outer bearing	1	10
255060006	Guard tube inner bearing	1	11
6086FF	Guard/Cover assy complete	1	12
252000001	Safety Chain	2	13
643248	Slip clutch complete	1	Not shown
3721	Slip clutch discs	2	Not shown
2190402	PTO Cone with flaps	1	Not shown



## Warranty Statement

# **WARRANTY**

The manufacturer's obligation under this warranty is limited to correcting without charge at its factory or by one of its authorised Dealers, with the manufacturer's approval, any parts thereof, within 12 months from date of purchase by the original user, and which upon examination shall disclose to the manufacturer's satisfaction to have been originally defective.

Correction of such defect by repair to, or supplying of replacements of defective parts, shall constitute fulfillment of all obligations to the original user: Manufacturer shall not be liable for loss, damage, or expense directly or indirectly from the use of its product or from any other cause. Defective parts must be returned freight paid each way by the purchaser to the manufacturer.

This warranty shall not apply to any parts which must be replaced because of normal wear, or which have been subject to misuse, negligence or accident or which have been repaired or altered outside of the manufacturer's factory, unless authorised by the manufacture. This warranty should not be construed as a free service period during the warranty period.

No person, agent, or dealer is authorised to give any warranties on behalf of the manufacturer nor to assume for the manufacturer any other liability in connection with any of its product unless made in writing from the manufacturer.

***FIELDMASTER***®

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Pukekohe  
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### Notes:

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**Dealer Contact details:**

A large rectangular area with rounded corners, filled with a fine grid of small squares, intended for handwritten contact details.