



FINEST IN THE FIELD



Single Fold  
Double Fold

Universal Cultivator

# John Shearer Universal Cultivator

A multi purpose machine ideal for minimum-till, no-till and conventional farming. Use as a zero-till planter in summer cropping regions, when fitted with straight adjustable planting tynes.

In conjunction with an Airseeder, sow up to 18.5m (60') on multiple row spacing options.



- Multi purpose machine
- Multiple tyne spacing options

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THE ARROWCREST

# Universal Cultivator



## SINGLE FOLD sizes up to 46' (Standard & narrow centre models)

(left)  
12.6m (41'6")  
Single Fold model



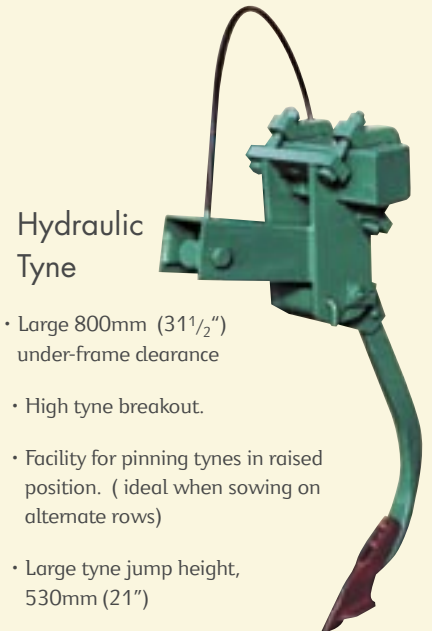
## DOUBLE FOLD sizes up to 60'

(left)  
15.3m (50')  
Double Fold model

### Universal Cultivator

#### Features Include:

- **Multi purpose machine**
  - use for direct drilling or conventional cultivation with sweeps.
- **Universal tyne spacings**
  - flexibility for multiple applications.
- **Large underframe clearance**
  - 800mm (31½") promotes maximum trash flow.
- **Facility for locking tynes in raised position**
  - ideal when sowing on alternate rows.
- **Unique wing fold mechanism**
  - smooth fold/unfold action.
- **Hydraulic Tyne assemblies**
  - provide 'on the go' adjustable tyne breakout
- **In-line valves**
  - (hydraulic tyne model) control tyne recoil speed and protects components



#### Hydraulic Tyne

- Large 800mm (31½") under-frame clearance
- High tyne breakout.
- Facility for pinning tynes in raised position. ( ideal when sowing on alternate rows)
- Large tyne jump height, 530mm (21")
- Tyne foot, two ½" bolts @ 1 ¾" centres
- Accepts a wide range of ground engaging tools from knife points to sweeps



#### Spring release Tyne

#### Straight Adjustable Planting Tyne

- Straight Adjustable Tyne includes single steel sowing boot
- Tyne foot accepts various cast spear points
- Edge-On 25x50mm (1"x2") heat treated high carbon steel tyne
- Ten (10) tyne depth adjustments



### Hydraulic Tyne Assembly

The Universal Cultivator with hydraulically loaded tyne assemblies, provide 'on the go' adjustment from the tractor seat for varying soil types and conditions eg. light sandy loam, rocky, heavy clay. The 800H assembly also has a number of other important features, including the facility for locking tynes in the raised position, (which is ideal when sowing on alternate rows), a very high underframe clearance of 800mm (31 1/2") and a large jump height of up to 530mm (21"). The assembly has a regreasable 25mm hardened pivot pin, replaceable bushes and a 25mmx50mm section, heat treated, silicon manganese high carbon tyne. Tyne foot incorporates two 1/2" bolt holes at 45mm (1 3/4") centres.

### Sow or Cultivate at the Right Spacing

The unique design of the Universal Cultivator allows multiple tyne spacing options to suit your conditions & cropping program. The purpose built super structure / underframe design, allows tynes to be placed in virtually any position along the rows. This flexibility permits multiple tyne spacing and patterns to be achieved. ie. Double fold model, 200mm (8") spacing and upwards, single fold 180mm (7") and upwards.



### Three Models

Single fold: Standard centre

—8.9m (29'5") to 14.1m (46')

Single fold: \*Narrow centre

\*Narrow centre has transport width of 6.0m (19'6")

—8.0m (26'5") to 13.1m (42'4")

—Maximum width for the single fold model, is when using a 6 tyne extension.

—Double fold 15.3m (50') to 18.5m (60')

### Massive Trashflow

Trashflow is enhanced with a large underframe clearance of 800mm (31 1/2") and the five (5) row frame with good lead between rows, to assist with moving through heavy stubble residues. Jump height on the hydraulic tyne assembly is 580mm (21").



### High Flotation

Large radius high flotation tyres, give better depth control, less compaction and improved rolling resistance. Stabilia 12.0x16 'rib' tyres are fitted to the wings and castor wheels. Lug pattern 11.5/80-15.3x 12 ply tyres are optional. Larger 20" wheels, which have a high load rating, are fitted to the centre section.

### Robust Construction

One look at the Universal Cultivator and you can see the strength that has been engineered into the machine. The main frame sections, castoring assemblies and axles are strongly constructed. Large diameter hardened pins and bushes are incorporated in high load pivot points. In the Shearer tradition, owners can expect, long life of operation and a machine that really holds its value.

### Press Wheels

Optional in-frame press wheels, features includes:

- Mounts directly onto 800H tyne carrier
- Vertical pivoting
- Self centering 'swivel' design
- Spring loaded

### Floating Hitch & Castoring Wheels For Ground Following

Flotation and ground following ability is enhanced with front castoring wheels on the centre section, inner/ outer wings, and a long 5.2m floating hitch which are desirable features when used in conjunction with an Airseeder. The 'Double Fold' Universal Cultivator is equipped with a total of twelve (12) high flotation tyres fitted to the centre section, inner & outer wings. Single fold model has ten (10).



### Controlled Re-Coil Action

'In-line' valves fitted to the Universal Cultivator's hydraulic circuitry, which supplies oil to the tyne assemblies, assist in controlling the re-coil speed and force of the tynes as they return to the work position, after jumping over obstructions. With this controlled action, when a tyne is returning back into the soil or possibly onto another obstruction (e.g. rock), the result is less strain and shock loads to the tyne, point and related components. The full jump height of the tyne is still available at all times and is not impeded or reduced as the tyne jumps.

This addition improves the overall performance of the universal cultivator in a wider number of farming applications and in particular where stony conditions persist.

### Simple Levelling Adjustment

Initial levelling of the machine for work is a simple procedure. To level the machine front to rear, the castor linkages are adjusted. For side to side or 'across the width' levelling, the inner layshaft links control the centre to wings. On the double fold model machine, screw adjustable blocks on the base end of the outer wheel cylinders, controls the height of the outer wings in relation to the inner wings.

### Good Depth Control

Single fold model has two double acting lift cylinders fitted to the centre section, which are mechanically linked to the wings. (No phasing cylinders). On the double fold model, the centre and inner wings operate the same as the single fold model, while on the outer wings, the lift cylinders are phased to the centre section cylinders. This system provides fast, accurate and positive depth control.



### Unique Wing Fold Mechanism

Dual reverse acting 5"x30" folding cylinders, on the larger size machines (single on smaller models), provide smooth fold/unfold operation. On the double fold models, inner to outer wings, have unique 'power hinge' folding design.



## Single Fold Model

### 5 Row Narrow Centre Model:

<b>Size—Working Width</b>	8m (26'5")	9.9m (32'2")	11.7m (38')
<b>Number of tynes @ 230mm (9")</b>	35	43	51

### 5 Row Standard Model:

<b>Size—Working Width</b>	5m (16'3")	8.9m (29'5")	10.8m (35'6")	12.6m (41'6")
<b>Number of tynes @ 230mm (9")</b>	21	39	47	55
<b>Tyne Extensions</b>	Working widths can be increased with the addition of optional 2 or 6 ext.			
<b>Transport Width</b>	7.1m (22'11") Standard, 6.1m (19'6") Narrow Centre			
<b>Hitch</b>	Fully floating 5.2m (17')			
<b>Transport Clearance</b>	Under sweeps 250mm (10") Height 3.8m (12'6") to 5.6m (18'6")			
<b>Number of Rows</b>	5			
<b>Tyne Spacing</b>	Multiple tyne spacing options			
<b>Overall</b>	From 180mm (7"), eg. 200mm, 230mm, 254mm, 300mm etc			
<b>Working Depth Maximum</b>	180mm (7")			
<b>Underframe Clearance</b>	800mm (31 1/2")			
<b>Tyne Assemblies</b>	Edge-on 50mmx25mm (2"x1") section, heat treated silicon manganese high carbon steel—hydraulic or spring release. Tyne foot: 2 x 1/2" bolts at 1 3/4" centres			
<b>Jumper Circuit (Hydraulic)</b>	Combination of 44.5mmx 203mm (1 3/4x8") spring accumulator & 10 litre capacity gas accumulator. In line valves to control tyne re-coil speed & force			
<b>Tyne Breakout</b>	Adjustable to more than 205kgs (450lbs)			
<b>Frame</b>	Tyne mount: 100mm (4") SQ R.H.S.			
<b>Tyne jump height</b>	580mm (21")			
<b>Depth Control</b>	Centre section rockshaft with tandem cylinders mechanically linked to wing wheels.			
<b>Wing Fold</b>	Large wings: (2) pair of 5"x30" fold/unfold cylinders, Medium and Small wings: (1) pair			
<b>Wheel Equipment</b>	Centre section: 16/70 x 20 x -14 ply Sure Grip—rib are optional Wings & Front castors: 12.0 x 16 x 10ply Stabilia— 'lug' are optional			
<b>Options</b>	2 or 6 tyne extensions, spring tooth harrows, airseeder kits, additional 10 litre gas accumulator, Extra wing fold kit (medium wing) 'Lug' pattern 10.5/80-15.3 x12ply for castor & wing wheels, Press Wheels (in frame), straight adjustable planting tynes.			

## Double Fold Model

### Features unique to

<b>Double fold model.</b>	<i>UC 5000,</i>	<i>UC5500,</i>	<i>UC 6000</i>
<b>Size—Working Width</b>	15.3m (50')	16.8m (55')	18.5m (60')
<b>Number of tynes @ 230mm (9")</b>	68	75	81
<b>@ 200mm (8")</b>	76	83	91
<b>Transport Width</b>	7.1m (22'11") all sizes		
<b>Transport Height</b>	15.3m (50') model:- 4.98m (16' 2") , 18.5m (60):- 5.94m (19'6")		
<b>Tyne Spacing</b>	Multiple tyne spacing options		
<b>Overall</b>	From 200m (8")		
<b>Jumper Circuit (Hydraulic)</b>	Combination of 44.5mmx 203mm (13/4x8") spring accumulator & 20 litre capacity gas accumulator. (2x10 litres). In line valves to control tyne re-coil speed & force		
<b>Depth Control</b>	Centre section rockshaft with tandem cylinders mechanically linked to inner wing wheels & 'phased' to outer wing wheels.		
<b>Wing Fold</b>	(2) pair of 5"x30" fold/unfold cylinders-centre section to inner wings. (2) pair of 5"x12" fold/unfold cylinders-inner wings to outer wings.		
<b>Wheel Equipment</b>	Centre section: (2x) 14.00 x 20 x 22ply, double Chevron tread design. Inner / outer wings & front castors: (10x) 12.0 x 16 x 12ply Stabilia 'Rib'		

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