

# HOWARD ROTAVATOR Agricultural Range

P SERIES  
E SERIES  
S SERIES  
M SERIES  
ROTACADET





# P SERIES

## For tractors up to 40 h.p. at P.T.O.: A choice of 4 working widths

The P Series is suitable for all tractors up to 37 h.p. at the P.T.O. with Category I 3-point linkage. There is a choice of four working widths: 40, 50, 60 and 70 inches.

### Selectatilt Gearbox

The Selectatilt feature keeps the use of tractor power to a minimum, providing just the right rotor speed to match any tillage operation. Two pairs of pick-off gears which can be changed in the field without tools, and in a matter of minutes, give a choice of four rotor speeds.

### Blades

Universal 'L' shaped blades are arranged in the "3-blade formation" round the rotor. The scroll pattern ensures that the cut is made one blade at a time. 'C' blades can also be used.

### Drive

The drive from the Selectatilt gearbox to the rotor is by a gear train that does not need adjustment.

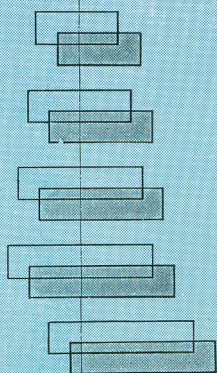
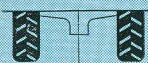
### Mounting Positions

The Rotavator may be mounted in one of two alternative positions enabling it to work either centrally behind the tractor or offset to the right.

The P Grove 70" which is designed especially for orchards, orange groves etc., has two fully offset mounting positions that enables the machine to work as close as possible to the tree stem.



## SPECIFICATION



Model	Centre Widths left/right	Offset Widths left/right	Rotor Tillage Width	Overall Width	Weight
P40	21/19 in. (53/48 cm.)	11/29 in. (29/73 cm.)	40 in. (102 cm.)	53 in. (135 cm.)	578 lb. (262 kg.)
P50	25/25 in. (64/64 cm.)	15/35 in. (38/89 cm.)	50 in. (127 cm.)	63 in. (160 cm.)	626 lb. (284 kg.)
P60	30/30 in. (76/76 cm.)	20/24 in. (51/102 cm.)	60 in. (152 cm.)	73 in. (185 cm.)	654 lb. (297 kg.)
P70	35/35 in. (89/89 cm.)	25/45 in. (64/114 cm.)	70 in. (178 cm.)	83 in. (211 cm.)	712 lb. (323 kg.)
PG 70	(Fully Offset)	16/54 in. (41/137 cm.)	70 in. (178 cm.)	85 in. (216 cm.)	700 lb. (317 kg.)
		6/64 in. (15/163 cm.)			

### Selectatilt Speeds

Gear ratio	Colour of gears	Rotor speed
26/20	GREEN	140 r.p.m.
20/26	GREEN	240 r.p.m.
24/22	BROWN	170 r.p.m.
22/24	BROWN	200 r.p.m.

### Cutting Depth

To 8 in. (20 cm.) maximum, adjusted by a depth control wheel.

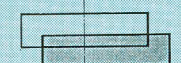
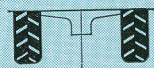
(the 'G' stands for Grove, to illustrate that it is ideal for orchard groves, i.e., fully offset.)



# E SERIES



## SPECIFICATION



### Machine Weights and Widths

Model	Centre Widths left/right	Offset Widths left/right	Rotor Tillage Width	Overall Width	Weight
E 50	25/25 in. (63/63 cm.)	15/35 in. (38/89 cm.)	50 in. (127 cm.)	62 in. (157 cm.)	970 lb. (445 kg.)
E 60	30/30 in. (76/76 cm.)	20/40 in. (51/102 cm.)	60 in. (152 cm.)	72 in. (183 cm.)	1,030 lb. (475 kg.)
E 70	35/35 in. (89/89 cm.)	25/45 in. (64/114 cm.)	70 in. (178 cm.)	82 in. (208 cm.)	1,150 lb. (530 kg.)
E 80	40/40 in. (102/102 cm.)		80 in. (203 cm.)	97 in. (246 cm.)	1,344 lb. (610 kg.)

### Selectatilt Speeds

Gear ratio	Colour of gears	Rotor speed
20/15	BLUE	125 r.p.m.
15/20	BLUE	220 r.p.m.
18/17	ORANGE	155 r.p.m.
17/18	ORANGE	175 r.p.m.

### Cutting Depth

To 8 in. (20 cm.) maximum, adjusted by a depth control wheel.



and the  **80** model

## 5 working widths for tractors of 35—60 h.p. at P.T.O.

The E Series is suitable for all tractors up to 60 h.p. at the power take off shaft, with category 1 or 2, 3-point linkage. There are five working widths, 40, 50, 60, 70 and 80 inches.

### Selectatilh Gearbox

A heavy-duty Selectatilh gearbox provides the right rotor speed to match any tillage operation with the minimum use of power. Two pairs of pick-off gears can be changed quickly in the field without tools to give a choice of four rotor speeds. Special pick-off gears are available for tractors equipped with 1,000 r.p.m. p.t.o.

### Blades

The rotor blades may be fitted either with the 2 or 3 blade formation depending on the soil or the work in hand—the rotor is drilled to take both blade forms and still retains the correct scroll pattern. Universal 'L' blades are usually fitted but 'C' blades can be fitted for work in heavy trash or sticky soils.

### Drive

The rotor is driven by an easily adjusted heavy-duty chain.

### Mounting Positions

Two alternative mounting positions allow the Rotavator to work either directly behind the tractor or offset to the right.

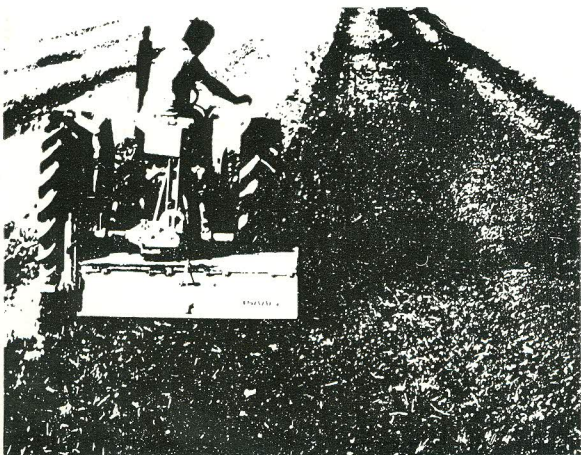
### Inter row rotor

A special row crop rotor with adjustable flanges is provided as an optional extra for work in strawberry rows, spring cabbages, potatoes or any crop where inter row cultivation helps to break down clods or reduce weed competition to the crop.

Crop guards stop any soil from falling onto delicate plants.

## An ideal Rotavator for high speed light cultivation with 60 h.p. at P.T.O: category 2 tractors.

With a working width of 80 inches (203 cms.) the centrally mounted E 80 covers the ground fast making the most profitable use of modern tractor power, and erases both tractor wheel marks. Twin depth control wheels or depth skids assist in providing a level seedbed for the new crop on ploughed land, and even break-up of a ley for reseeding, or a quick pass over stubble or crop residues. Where soil conditions are right 80 inches of fast shallow tillage can deal with as much as 20 acres a day.



### SPECIFICATION

#### Tractor

For category two tractors only, up to 60 h.p. at the power take-off.

#### Rotor Tillage Width

80 inches (203 cm.).

#### Rotor

The rotor flanges are drilled to take 2 or 3 blade formation.

#### Selectatilh Gearbox

Providing four rotor speeds from 125 to 220 r.p.m.

#### Safety Clutch

An overload clutch is fitted between universal joint assembly and bevel gearbox.

#### Depth Control

Twin hand-adjusted pneumatic depth wheels fitted with 5.20 x 12 tyres. (Optional alternative—twin depth skids.) Maximum depth 8" (20 cm.) depending on soil conditions; 4" (10 cm.) for fast tillage.

#### Trailing Shield

Specially designed in two sections for easy adjustment.

#### Dimensions

Width overall	—	97" (246 cm.)
Height	—	50" (127 cm.)
Length	—	54" (137 cm.)
Weight	—	1,344 lb. (610 kg.)



*Preparation of Wet Padi. Maylasia. E Series.*



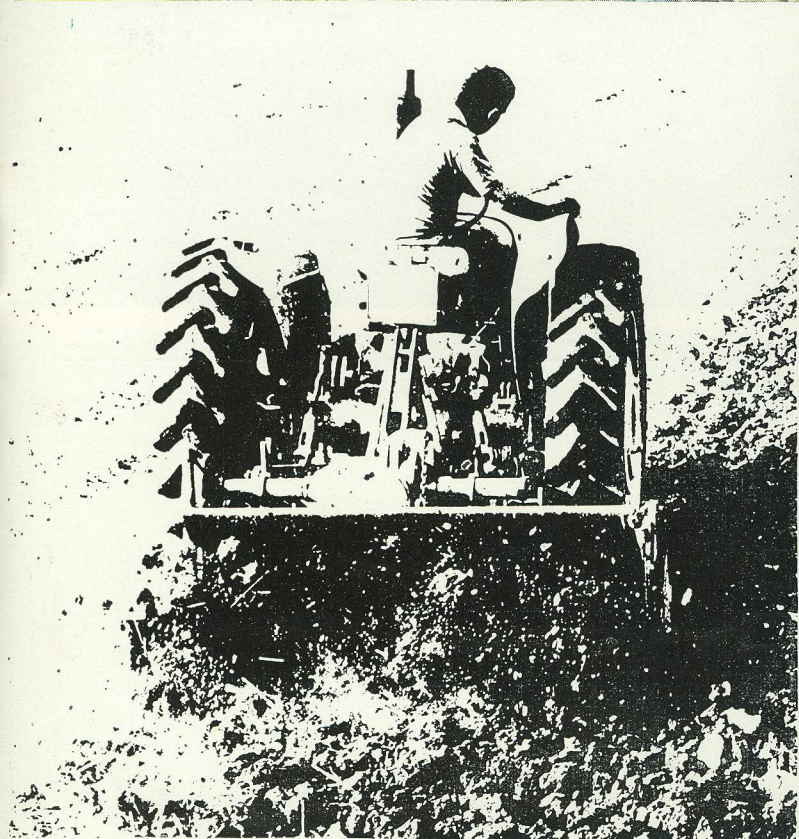
Page 4 *Turning in Wheat stubble. Mississippi Delta. S Series.*

*Ratooning Sugar. Empangeni, Zululand. Slip Flange Rotor. E Series*



# THE ROTAVATOR OVERSEAS

*E Series. Philippines.*



*Preparing Seedbed. Finland. Rotacadet.*



# S 80/S 100

## Two working widths for 65—100 h.p. tractors at P.T.O.

The S Series Rotavator is a rugged tillage machine for tractors of 65–100 h.p. at the p.t.o. Two working widths of 80 and 100 inches are available.

### Selectatilt Gearbox

A heavy-duty Selectatilt gearbox provides the right rotor speed to match any tillage operation with the minimum of power. A choice of four rotor speeds can be obtained from two pairs of pick-off gears which can be changed quickly in the field.

### 540 or 1,000 r.p.m. p.t.o.

The gearbox is fitted with interchangeable transfer gears which allow the Rotavator to be used with tractor p.t.o. speeds of either 540 r.p.m. or 1,000 r.p.m. When ordering specify whether 540 or 1,000 r.p.m. unit is required.

### Blades

The blade form can be either 2 or 3, depending on the soil or the work in hand—the rotor is drilled to take both blade forms, and still retain the correct scroll pattern. Universal blades are usually fitted but long shank for deeper penetration, or 'C' blades for work in heavy trash or sticky soils, can be fitted.

### Drive

The rotor is driven by a gear train that needs no adjustment.

### Mounting Position

The S 80 and S 100 are mounted centrally behind the tractor.

### Converto Frame

A carrier is available for the S 80 and S 100 machines, to convert them to trailed or pull-type implements for tractors without hydraulic lift system.

### Depth of Cut

Adjustable to 9 inches maximum by two hand-operated depth control screws fitted one at each side of the machine.



## SPECIFICATION

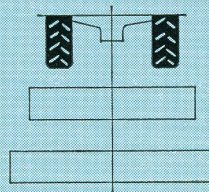
### Selectatilt Speeds

Gear ratio	Colour of gears	Rotor speed
24/21	BLUE	157 r.p.m.
23/22	ORANGE	172 r.p.m.
22/23	ORANGE	188 r.p.m.
21/24	BLUE	206 r.p.m.

### Optional Extra Gears:

27/18	WHITE	120 r.p.m.
26/19	BLACK	131 r.p.m.
25/20	RED	144 r.p.m.
20/25	RED	225 r.p.m.
19/26	BLACK	246 r.p.m.
18/27	WHITE	270 r.p.m.

## Machine Weights and Widths



Model	Rotor Tillage Width	Overall Width	Weight
S 80	80 in. (203 cm.)	94 in. (238 cm.)	1,800 lb. (815 kg.)
S 100	100 in. (254 cm.)	114 in. (289 cm.)	1,990 lb. (900 kg.)



# M 80/M 100/M 130

## For tractors from 80—140 h.p. at P.T.O with a choice of 3 working widths

These are the big Howard Rotavators—made for continuous, tough field work on big farms. Made for tractors that deliver a minimum of 80 h.p. at the p.t.o. shaft, and with a p.t.o. speed of 1,000 r.p.m.

Given that kind of power, they will maintain ground speeds up to 5 miles an hour and cultivate as much as 4 acres an hour. Maximum tillage in minimum time is the performance you can depend on—whether the job is breaking-up pasture, turning in corn stalks or, in one pass, preparing a seedbed on ploughed land.

Mounting jacks make attachment easy. After manual setting the cutting depth is under hydraulic control—but a screw jack system is available if preferred. Extra protection against transmission shock is provided by a multi-plate torque limiter.

**M 80.** This is a special unit for really heavy-duty work. Its main difference from the M 100 and M 130 is that it has double flanges to give even more support to the blades.

### Selectatilt Gearbox

A heavy-duty Selectatilt gearbox provides the right rotor speed to match any tillage operation with the minimum of power. A choice of four speeds can be obtained from two pairs of pick-off gears which can be changed quickly in the field.

### Blades

The blade form can be either 2 or 3, depending on the soil or the work in hand—the rotor is drilled to take both blade forms, and still retain the correct scroll pattern. Universal blades are usually fitted but long shank for deeper penetration, or 'C' blades for work in heavy trash or sticky soils can be fitted.

### Mounting Position

All the M Series work centrally mounted behind the tractor.

### Converto Frame

The M Series has a triangular frame designed to enable the mounted version to be operated and towed behind tractors that do not have 3-point linkage (i.e. to convert from lift-type to trailed or pull-type).

### Cutting Depth

To 9 in. (23 cm.) maximum by preset, hydraulic depth control system—or by screw jack.



## SPECIFICATION

### Selectatilt Speeds

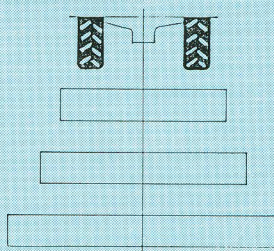
Gear ratio	Colour of gears	Rotor speed
22/27	WHITE	159 r.p.m.
24/25	RED	188 r.p.m.
25/24	RED	204 r.p.m.
27/22	WHITE	240 r.p.m.

### Optional Extra Gears:

Gear ratio	Colour of gears	Rotor speed
21/28	ORANGE	147 r.p.m.
23/26	BLACK	173 r.p.m.
26/23	BLACK	221 r.p.m.
28/21	ORANGE	261 r.p.m.

### Machine Weights and Widths

Model	Rotor Tillage Width	Overall Width	Weight
M 80	77 in. (196 cm.)	100 in. (254 cm.)	3,000 lb. (1,360 kg.)
M 100	100 in. (254 cm.)	120 in. (304 cm.)	3,100 lb. (1,406 kg.)
M 130	130 in. (330 cm.)	150 in. (381 cm.)	3,475 lb. (1,576 kg.)





# ROTACADET

**A special machine for tractors  
up to 60 h.p.**

**a) Standard Rotacadet for general  
cultivation—70" wide**

**b) Standard Rotacadet plus fittings  
for row-crop work—70" wide**

The Rotacadet is a fast lightweight rotary tillage unit for tractors up to 60 h.p. and category 1 or 2, 3-point linkage. It has the same scroll pattern layout but uses special blades that absorb the least power yet move all the soil in their path.

Take the same machine, substitute a row-crop rotor, fit crop guards, and it becomes ideal for inter-row weeding. The blade flanges on this rotor adjust to suit the crop spacing.

#### **The Clutch Unit**

As a fast seedbed producer the Rotacadet is only intended to till at 4 in. deep. To protect the transmission, a clutch is fitted on the universal drive. When the work done absorbs more than 35 h.p. the clutch will slip and the rotor will only drive again when the load is reduced—by working forward in a lower tractor gear or by reducing the depth of work.

#### **Depth Control**

Depth control is by 2 front-mounted skids which have replaceable sole plates. Depth control wheels are optional (standard on a rowcrop model).



#### **SPECIFICATION**

Suitable for 3-point linkage, category 1 and 2 tractors up to 60 h.p.

A single plate safety clutch limits the power transmitted to 35 h.p.

Cultivating width either 70 in. (178 cm.) or 50 in. (127 cm.).

Side-driven Rotor.

Two rotor speeds: 236 r.p.m. or 290 r.p.m. at 545 r.p.m. on P.T.O. shaft.

Two front-mounted depth control skids with replaceable wearing sole plates.

*Weight:* 640 lb. (290 kg.).

*Height:* 37 in. (94 cm.).

*Width Overall:* 78 in. (198 cm.).

*Rotor Tillage Width:* 70 in. (178 cm.)

*Optional extras:*

Row-Crop Rotor,

Crop Guards and

Depth Control Wheels.





**HOWARD  
ROTAVATOR.**

The world's leading manufacturer of rotary tillage equipment

**HOWARD ROTAVATOR COMPANY**

**HARVARD, ILLINOIS — SACRAMENTO, CALIFORNIA**

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