

# SO DO YOU

### YEOMANS KEYLINE CONCEPTS

THE OBJECT OF AGRICULTURE IS TO FEED AND CLOTHE PEOPLE. Two things will guarantee this happens with maximum efficiency. Firstly, farming must be prosperous and secondly, soil fertility must constantly improve.

Over the next decade I believe there will be a rapid expansion, here and world wide, in the demand for both organically grown produce and produce grown with zero to minimum chemical inputs. That is the expanding market and humus rich soils are the key to that market. (Technically, and here, humus is being regarded as a mixtures, or conglomeration, of the millions of varieties of humic and fulvic acids molecules found in fertile soil).

THE BIOLOGICAL BREAKDOWN OF SURFACE LITTER AND DEAD ROOT MATTER can produce soil humus in huge quantities. Agricultural chemicals are often the most costly item in crop production. Unfortunately, and almost without exception, agricultural chemicals kill the microbes, the bacteria and the worms that turn dead plant material into rich humus laden soils.

TO RAPIDLY INCREASE THE FERTILITY OF ANY SOIL, anywhere, requires a soil environment where soil biological activity is maximised. Rich fertile soils always grow big healthy profitable crops and healthy crops are extremely resistant to pathogens and insect pests. Insect "pests" in agriculture are like sharks in the ocean, they hunt out and kill, and then eat the sick and the dying. But healthy crops, like healthy people are disease resistant.

There are a few fundamental requirements to generate a suitable environment for the manufacture of fertile soil.

FIRSTLY, A REASONABLY MIX OF MINERALS AND ELEMENTS for nutritious plant growth must exist in both the soil, but more importantly, the

subsoi

Because of millions of years of geological mixing, most soils do have these mineral. The few exceptions are soils composed of materials such as quartz sands. Also soils that have seen thousands, or even millions of years of leaching with zero erosion, such as tropical jungle soils, are often mineral deficient.

In soils containing very little organic matter the minerals are generally not "available" to the plants, but the chemistry of healthy soil biological activity releases them to the plants. Minerals, unavailable to plants, are available to soil biological activity. If this were not so, land plant life and in consequence all more highly developed land life, could not exist on our planet.

SECONDLY, SOME SUNLIGHT MUST GET THROUGH TO THE PLANT. This can be a problem in high rainfall areas and should not be ignored.

THIRDLY, MOISTURE MUST BE PRESENT, and it must be present within the soil structure, not as liquid water, but as humidity, or water vapour.

**FOURTHLY, AIR MUST BE PRESENT**, for the microbes, the bacteria and the worms that convert dead plant material into rich humus, all breathe air.

FIFTH AND LASTLY THERE MUST BE THE DEAD PLANT MATERIAL for the microbes to eat and convert to humus.

YEOMANS PLOWS AND EQUIPMENT ARE DESIGNED WITH TWO OBJECTIVES. One is that the use of the equipment must produce a soil and subsoil environment wherein soil life will thrive and proliferate. And the other design requirement is that what we make must be extremely strong. It must be reliable and it must be efficient.



Two oat crops, side by side in granite country in central New South Wales. The one on the left shows how soil was improved by using a Yeomans Plow and avoiding agricultural chemicals. The one on the right results from believing and using current conventional agriculture doctrine.

DURING CULTIVATION THE SOIL IS GENTLY LIFTED AND LOOSENED with negligible soil profile disturbance. This was an important design consideration. In consequence rain is always rapidly absorbed. Air becomes readily available and the generated soil life and soil chemistry releases minerals. These minerals ultimately chelate, or loosely attach themselves onto clay particles and humic acid molecules. Chelated this way they are both insoluble in water but at the same time available to growing plants.

After harvest, which may of course be grazing or forage harvesting, crop roots and crop surface litter then become the food for soil microbes and earth worms. All the requirements for rapid soil development are met.

With reasonable crop rotation and preferably with inclusion of a pasture phase, soil enrichment will then intensify and deepen as a continuous and ongoing process.

THE FIRST CULTIVATION WITH A YEOMANS PLOW WILL PRODUCE A BETTER CROP, and it will often be a bumper crop. This is because clay particles in the now accessible subsoil are invariably coated with chelated minerals from what in effect is a few thousand years of underground "fallow". This is a short term effect and will generally only last a few seasons. It will however most certainly produce ample root mass and surface litter to ensure the rapid development of soil biological activity and increased soil fertility and so enhance new mineral supply.

THERE IN ALMOST NO AGRICULTURAL PROBLEM THAT CANNOT BE SOLVED BY INCREASING SOIL FERTILITY, problems such as production decreases, pest infestation, erosion, and even soil salination.

MY FATHER, P.A. YEOMANS AND I STARTED MAKING THE GRAHAM HOEHME CHISEL PLOW in 1952, under licence to the inventor in the mid 1930s of the original chisel plow, Bill Graham of the Graham Hoehme Plow Company. Since we commenced manufacture, out of respect for this famous plow and its inventor, we have always spelt plough the American way.

At that time Bill Graham's company and Yeomans Pty.Ltd. were the only manufacturers of chisel plows in the world. My father wanted Graham's chisel plow as he saw it as the ideal implement to develop the soil fertility he envisioned in his Keyline System of agricultural development and planning. The original Graham spring tyne chisel plow side of the business, was sold to Napier-Grasslands in the 1960s. We were, at the time considering the concept and development of a "subsoiler chisel plow". We saw such a unit as a second generation chisel plow. The ongoing development of both the subsoiler concept and the ideal subsoiling implement has continued ever since.

YOU WILL FIND THE YEOMANS PLOW DOES A REMARKABLY GOOD JOB IN BUILDING YOUR SOIL .

Allan J. Yeomans

Allan J. Yeomans

PA Yeomans on "Nevallan" 1952, Country was originally poor red shale and sandstone. Pasture was never irrigated.

Pasture left after one cultivation with Yeomans Plow.

# YEOMANS PLOWS ARE BUILT TO BE THE BEST PLOW FOR THE JOB

Whether it be grass or grains, vegetables or fruit, no matter what you want to grow, the soil and the season alone determine how good the crop will be. The season you can't change but the soil you can.

Our job is to make improving your soil as easy as possible. So we make several different shank types and a variety of frame sizes and configurations. But the lower - the in the ground bit - of all Yeomans shanks is the same. The plows are designed to suit the wide range of tractor types and powers available, and also all possible applications.

In every case, when working the soil, creating the optimum soil biological environment must always be the prime objective. All else then becomes automatic.

### YEOMANS PLOWS ARE ALWAYS DESIGNED TO BE AS VERSATILE AS POSSIBLE

The idea is to have one piece of equipment to handle every cultivation and earth working requirement.

- \* There is a wide range of plow widths and sizes available. There are three point linkage models fitted with three shanks that suit orchard and vineyard cultivation; right through to forty shank models with folding wings for broadacre and contract work.

  Pages 18 through 27.
- \* Rigid shank models come fitted with "Wombat" or "Merlin" points. Stump Jump Shank models come equipped with a very similar point called a "White Pointer" or "Merlin.

Various other points are available.

Shanks Pages 5 and 6. Points Pages 7 and 8 and 9 and 10

- \* All rigid shanks have integrally cast into them the patented and award winning Yeomans Shear Pin System.

  Page 5
- \* There is a special adaptor point, the "AJ50 Adaptor" that allows you to fit any of those conventional chisel plow tools sweeps ducks feet points etc. for virtually any desired application. And these points effectively become quick change "knock-ons".

  Page 8

There are two sizes of weld on shank bases available to ensure your Yeomans Plow lasts for ever in the most abrasive of soils. Page 14

\* Weed Knives can be fitted to a height adjustable attachment on the rear of the shank. Heavy duty weed knives (that are half way to a blade plow)

are also available for clearing scrub country.

See Pages 10 and 11 and 12

\* Coulter Systems are available including a very heavy duty unit for sugar cane cultivation.

See Page 15

\* Three different hillers or bed formers are available - one with almost unlimited adjustment - one for heavy duty in rough country and a disc hiller.

See Pages 12 and 13 and 14

- \* Yeomans Crumble Rollers with hydraulically controlled height adjustment are available to suit all frame types and sizes. Crumble rollers can also be supplied with manual adjustment to fit three point linkage plows.

  See Page 16
- \* A seed boot is available that fits behind the shank to use when, for example, an air seeder is pulled behind the plow.

See Page 14

\* We also make a simple, extremely rugged, individual shank pasture seed spreader we call a Shank Pot Seeder.

See Page 14

\* The famous Yeomans Shakaerator, that turns a plow into a jack hammer is still made and still doing a great job. It can be fitted to the smaller L43 and L60 models.

See Page 14

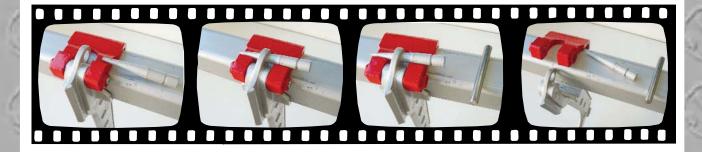
# THERE ARE FOUR RIGID SHANK SIZES ALL WITH YEOMANS SHEAR PINS



No Yeomans shanks are ever welded to the frame so shank spacings are always adjustable. This is absolutely essential for economical and effective subsoiling over different geological basses.

**SHANK SIZES** for smaller tractors in confined areas; the 22 Inch Shank is ideal (22 inch or 560mm under frame clearance). Bigger and heavier frames come equipped with 26 Inch Shanks with 660mm under frame clearance. For special applications there is also a 31 Inch Shank (790mm under frame) and in adjustable height shank, called the BIG-Y which is adjustable from 20 inches to 31 inches for inter row cultivation at different depths (518mm to 790mm under frame).

### SHEAR PIN REPLACEMENT IS QUICK AND EASY



SHEAR PINS are used on all rigid shanks and are simply a short piece of mild steel rod cropped to length. These protect both the shank and the plow frame. There are no expensive machined grooves in these pins. There are no drilled holes. These amazingly popular shear pins can be replaced in under forty seconds, using the drift supplied with the plow (a marlin spike works fine too), and a hammer. Roughly line up the shank and clamp plate, wack in the drift to tighten and align - slip in the shear pin and one wack removes the drift. And the job's done; and the cost is negligible.

The pins never move but also never jamb. Pins don't sheer until tip load exceeds approximately 3 tonnes for 22 INCH SHANK and 6 tonnes for all other shanks.

The sheer pin for the 22 INCH SHANK is 5 inches of half inch round, off the shelf mild steel rod (12mm by 125mm). All other rigid shanks use 6 inches of three quarter inch round mild steel rod (18mm by 150mm.)

It is the quickest to change and the cheapest to replace sheer pin in any system, on the market anywhere.

Section 6 Page 5

# THE YEOMANS HYDRAULIC STUMP JUMP PLOW

This is the plow to use in what would normally be described as "uncultivatable" country. With

these plows a rocky hill can be turned into a valuable pasture paddock. For plow sizes see Pages 23; 25; and 26.

The assemblies use a totally new and patented high pressure Impulse Ram. With these rams, if the plow point hits a rock the resistance or break out force can reach three tonnes. Then, if the rock hasn't moved after the plow has travelled forward a few inches, the ram pressure automatically switches over to normal line pressure. This allows the breakout forces to reduce to around one tonne and the shank to jump the rock and return to its operating position.

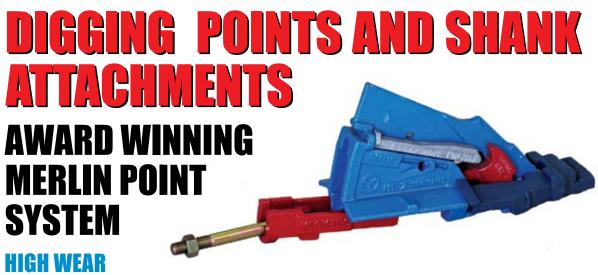
In action it works like a deep digging rigid shank, that can change to a stump jump shank for a few seconds, when it's absolutely necessary. It's incredible to watch the thing in action. To our knowledge, there is no other implement anywhere in the world, that has this capability. It's uniquely Australian.



"40" foot (12.2m) Folding Wing Model set up with thirteen Stump Jump Shanks. West of Biloela in central Queensland".

Page 6 Section 1,3,4 and 6

Plow contractors now all switching to Merlins, especially in super abrasive soils; "They're like a hot knife through butter."



RESISTANT POINT WITH REPLACEABLE WEAR PARTS MAKE FOR THE MOST COST EFFECTIVE POINT SYSTEM ON THE MARKET!

On a digging point it's the tip, and right on the tip, that gets the extreme wear. The main body doesn't, never the less the whole thing has to be thrown out, just because the tip is worn out.

So we made the tip like an easily replaceable glove. And sticking with the Middle Ages and the magic theme for naming, it's called a GAUNTLET. And, like its name sake, it too protects what's inside it.

Then at the very tip of the GAUNTLET we fitted a strip of tungsten carbide. On the serrated sides we put dobs of a hard facing material we call CBC (colloidal boron carbide) for more wear protection. Additional, in the design of these MERLIN components, we structured things so that in many places, the dirt itself packs in and the dirt becomes the wearing surface.

**And it all works.** The GAUNTLET seems to last about ten times as long as the old WOMBAT point we have used for years. The main body on the MERLIN 2 seems to be outlasting WOMBATS twenty to one. It's remarkable. It also won an Australian National Field Days Award of Excellence.

We all know that a plow point becomes worse than useless when it's so worn it stops protecting the actual shank. Now the top surface of points on all types of rippers, including the Yeomans is subject to a fair amount of wear. So to stop that being a problem, on the MERLIN we fitted two cute and cheap little replaceable items, the RABBIT and the TOP HAT. The top of the MERLIN is



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# DIGGING POINTS AND SHANK ATTACHMENTS



#### WOMBAT POINT WB-3.....

This general purpose, high wearing, knock-on point is standard equipment on all rigid shank plows. If you want to, it can also be pinned on with a quarter inch bolt or a piece of fencing wire.



#### WHITE POINTER WP-I AND WP-I(C).....

Sister to the WOMBAT POINT, fits all shank types but specifically designed for stump jump shanks. Also available with CBC (colloidal Boron Carbide) Hard facing.



#### AJ-50 ADAPTOR

AJ-50.....

This adaptor modifies the tips on any of the YEOMANS family of shanks to look like the bottom of a conventional chisel plow shank. This means that the dozens of varieties of chisel plow points on the market can be fitted to the Yeomans Plow. It will accept 50° and 54° angle chisel plow points with standard two and a quarter inch spacings.



#### •

The AJ-50 ADAPTOR is itself, a knock-on item so any chisel plow point bolted to it then also becomes a knock-on point. This can be a tremendous time saver.



#### STUMP JUMP SPLITTER BLADE SBL-SJ...... ▲

Same as the standard Splitter Blade but specially designed to eliminate deep under-stump hook ups in rough country



#### SPLITTER BLADE

SBL-2.....

The SPLITTER BLADE (or Shin Guard) is contoured to give maximum protection to the shank whilst keeping the same knife-like leading edge as the shank, to give that famous Yeomans minimum disturbance finish.



#### **BL-2 BRIDGE LOCK**

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Fast simple secure locking system to secure yeomans points to shank. Makes changing worn points simple and easy. Can be used with either 1/2" or 5/8" Diameter Bolt.

## DIGGING POINTS AND SHANK ATTACHMENTS

## **THE LEAP FROG SYSTEM**Popular, but now second place to the incredible Merlin Point.

We call it the LEAP FROG SYSTEM because that's how it works. The tip holder is the BULLFROG. It's a knock-on part that won't fall off. Into this is hammered the LEAP FROG. It's the wearing tip and it won't fall off either. A brand new LEAP FROG digs OK but actually gets better in use. The aeration effect in the ground is the same as the WOMBAT.



BF-1..... LF-1.....







The leapfrog system guarantees all the metal is used up in digging. There are never throw away bits at the end.

> When a LEAP FROG gets worn down, it has then self sharpened into a perfect digging point. You now knock this point out of the BULLFROG and fit a new LEAP FROG, and at the same time fit the sharp half worn point into this new LEAP FROG. It's all done with a hammer. Now go plowing again.

> You can now wear out the last bit of your first tip; right down to the last speck of metal. It's all used up digging. When the second tip is half worn out fit a new tip behind it. That's how they leap frog, and the concept is patented. Nothing is wasted and our tests show one LEAP FROG has almost the same life as a WOMBAT. Admittedly when really big rocks and big stumps are in the paddock the WOMBAT is the recommended point although in one case, LEAP FROGS were used in country with ironstone outcrops and twelve inch boulders. Each LEAP FROG travelled over one hundred kilometres and cultivated it's own fifteen acres.

#### **TADPOLE**

Unlike the LEAP FROG, the TADPOLE is a single use tip, cast from extremely hard and wear resistant tool steel. The TADPOLE has a mass of metal concentrated at the digging face. When it's worn out there is only a tiny bit left (and even this can be fitted to a leap frog). The TADPOLE is ideal in abrasive country and very popular.

TADPOLE TP-1.....



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# MOTE DIGGING POINTS AND SHANK ATTACHMENTS

BATSWING BW-4.....

The BATSWING is generally used for secondary cultivation, but is actually often used very successfully for primary cultivation in less difficult country. It is also used as a hiller, by turning it upside down. Like all the others it's a knock-on that can be pined if desired.

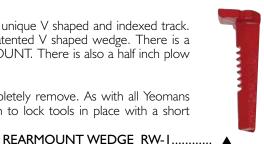


### SHANK REAR TRACK ATTACHMENTS

#### **REAR MOUNT WEDGE SYSTEM**

Integrally cast into the trailing edge of all Yeomans shanks is a unique V shaped and indexed track. The REAR MOUNT is locked onto this track by a unique patented V shaped wedge. There is a whole variety of ways things can be attached to the REAR MOUNT. There is also a half inch plow bolt location hole on each side. It's very useful.

A hammer is the only tool required to adjust height or completely remove. As with all Yeomans knock-ons and wedge systems, additional provision is built in to lock tools in place with a short piece of fencing wire.



#### **WOBBLE BLADES**

WOBBLE BLADES are a cross between BLADE PLOWS and HEEL KNIVES. They are a brand new, and very useful Yeomans invention. Patents are now pending.

The system allows the cutting blades to wobble sideways on a one inch pin to dodge around big rocks and stumps. It incorporates a sailing boat type keel between the blades to keep them in position whilst still allowing sideways movement if obstructions are too solid.

The replaceable self sharpening 12mm spring steel blades can happily cut through two inch thick scrub roots (50mm).

Ideal for one pass clearing, deep working and soil development in virgin scrub country. They are also great when introducing new grass seed varieties to existing pasture as they allow scrub root cutting and weeding well below grass root depth.



WOBBLE BLADE ASSEMBLY

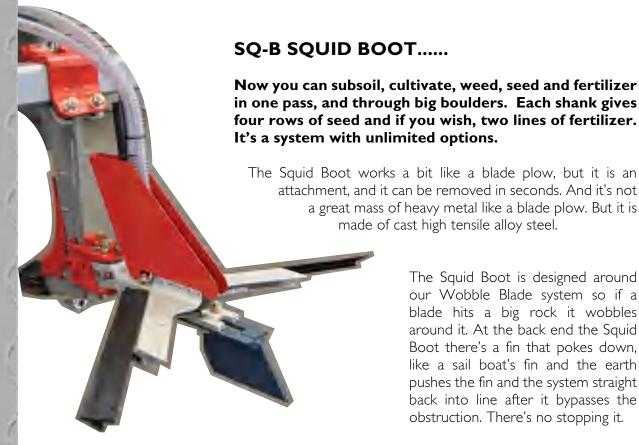
WOBBLE BLADES Fit all shank sizes, both rigid and stump jump, for rapid soil enrichment.



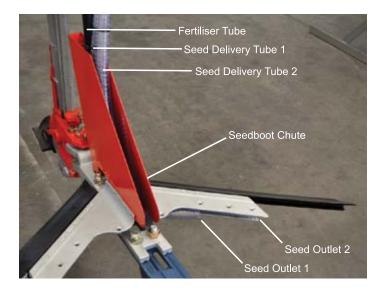
THE WOBBLE BLADE ACTION

Page 10 Section 6

### Will Colle SHANK REAR TRACK ATTACHMENTS







The Squid Boot is designed around our Wobble Blade system so if a blade hits a big rock it wobbles around it. At the back end the Squid Boot there's a fin that pokes down, like a sail boat's fin and the earth pushes the fin and the system straight back into line after it bypasses the obstruction. There's no stopping it.

- The cast steel blades are sharp, and they slant back, so they behave like weed knives. And they easily cut through roots as thick as your wrist.
- Height wise the Yeomans Squid Boot can be set on the Yeomans shanks rear track at whatever height above the digging point you wish for best weeding or sowing action.
- Row spacings; the seed delivery hoses come down the back of the shank, through a hose guide, down into the boot, then out sideways to whatever seed row spacing you select. It accepts seed and fertilizer from any good air seeder.
- Multiple rows? Yes. With this boot it's easy to run four different rows of seed, two each side of the shank; that's one boot, four seed lines.

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# more shank rear track attachments

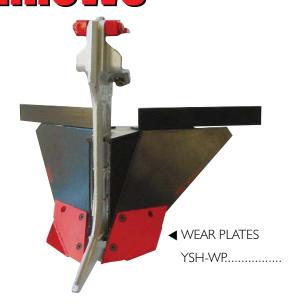
WEED KNIVES
YHKC...... YHKB..... knives only

Conventional weed knives or heel knives, 19 inch (480mm) cut. Weed knives bolt to REAR MOUNT (COCKS COMB) for weeding and deep working in one operation in clean country.

# HILLS & FURROWS

STEALTH HILLER YSH-I.....

Attaches to your Yeomans shank using the REAR MOUNT and REAR WEDGE system as used for mounting HEEL KNIVES. The STEALTH HILLER is then locked into place by using a simple but ingenious clamping system making the STEALTH HILLER extremely rigid. This rigidity helps create the deep clean furrow in even the most compacted soil conditions. The STEALTH HILLER is supplied with a pair of tool steel alloy wear plates which bolt on to the bottom of the main hilling boards. These wear plates have a small "wing" on the outside corner which cleans and grades the bottom of the furrow. The plates are reversible and can be simply swapped over when worn to utilise the opposite ends, effectively doubling their life. The hiller also comes with upper soil levelling bars.





Stealth Hiller because in the paddock it looks like a Stealth Bomber

Page 12 Section 6

# WWW HILLS & FURROWS

#### DISC HILLER DH-1.....

SUPER STRONG AND SUPER VERSATILE WITH COMPLETE 3D TILT, CAMBER AND SWING ADJUSTMENT.

Disc Hiller unit for creating furrows and renovating your existing Hill or Permanent Bed systems.

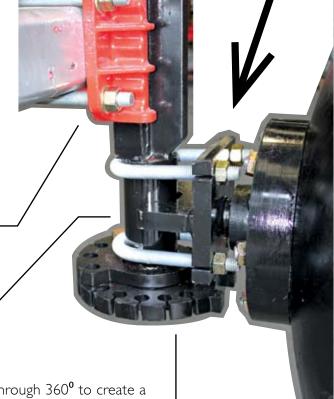


- Attaches to any 4"x4"; 4"x2"; or 4" x 1" frame member.
- Award Winning height adjustment system.
- Universal Disc hole pattern 6 x 22.5mm Ø on 185mm P.C.D. with 100mm centre hole allows fitment of a variety of common 26" and 28" scallop and fluted discs.
- Simple, fast and easy adjustment of both Disc angle and Pitch.
- Complete 3 Axis tilt, camber and swing adjustment.

Hiller Mounting Clamp attaches simply on to any 4"x4"; 4'x2"; or 4" x 1" frame member.

Pivot mounting of the Disc Hub assembly gives maximum flexibility in selection of Disc angle and position.

Disc Hiller Assembly can be simply rotated through 360° to create a variety of bed shapes and allows the unit to be mounted on both the transverse and longitudinal frame members.



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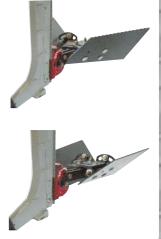
# more HILLS & FURROWS

MULTI ADIUSTABLE HILLER



When you need a specially formed hill or furrow, for a particular crop with unique furrowshape requirements, it is sometimes a problem. The Yeomans MULTI ADJUSTABLE HILLER now makes it all easy. It bolts onto a REAR MOUNT and the whole assembly can adjust up or down on the track for height adjustment and can also be totally detached from the shank in seconds. With this hiller, bed forming becomes simple. The blades can be tilted, they can be canted to any angle, spread apart, turned upside down, and one

blade can even be set different to the other.



### SEEDING OR FERTILISER BOOT

The BOOT has an outside diameter of 1.9" and an inside diameter of 1.65" (48.5mm and 41.9mm). It is flattened slightly at the bottom to fit snugly behind the shank. The boot is mounted on the shank's rear track and is adjustable in height with the V WEDGE system.



A simple versatile single pot seeder that can handle white clover through to granulated super. The seed simply falls through the hole size you dial up. But this unit doesn't block up. It has a unique patented jiggler system that protrudes through the hole and constantly bounces up and down as the tractor moves. It is virtually impossible for the seed to "bridge" over the hole. The seeder incorporates a 4" diameter stainless steel disc, with 15 feed holes from 5/8" (15.8mm) down to 1/16" (1.6mm) diameter to handle any seed size. Bolts onto the 4" square plow beams. Great for adding a new seed variety to an existing pasture.



YSB.....

### SHAKAERA

The SHAKAERATOR has been vibrating Yeomans plows since 1972. The unit is PTO driven from the tractor. The latest model contains four (easy to change with only Each weight can be set in hammer) eccentric weights.



three different positions to give a dozen different vibration levels. With the SHAKAERATOR running these vibrations effectively turn the plow into a jack hammer. The plow also becomes lighter to pull. People say they can easily go up a gear. Unhook and remove the weights and the unit becomes a convenient transfer box that gives you a PTO drive point right on the plow.

The SHAKAERATOR can be fitted to the smaller L43 and L60 linkage models. It can also be fitted to the smaller trailing model plows. Unfortunately heavier plows are just too hard to shake and get any worth while effect.

### REPLACEMENT BASE AND REPLACEMENT TIP

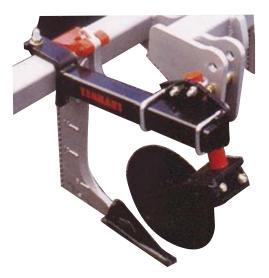
The REPLACEMENT BASE is the bottom 15" (380mm) of the Yeomans shank. It includes the rear track.The REPLACEMENT TIP is the very bottom of the shank where the points are attached. Both these units are weld on parts and will turn a twenty five year old, well worn, Yeomans shank into a new one. Oxy cut off the old base, line up and weld on the new part. Ordinary MIG wire is OK.



RT-1.....

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### **YEOMANS COULTERS**



#### 18 INCH COULTER

This unit is built to suit plows equipped with all shanks other than the 22" SHANK. It is slightly bigger than the 16" COULTER and has a wider range of adjustments. The model comes optional with either 18" or 22" coulter discs. In the 18" size, fluted coulters discs are optional. Like the 14" model this also has built in castoring. It is also adjustable in fore aft positioning, and in height and in castoring angle. The mechanism is bolted to the plow frame with our patented single L-bolt system. This allows easy sideways adjustment and simple and quick attachment and removal. The bearing system and disc mounting is an HT Holden configuration. The YEOMANS 18" COULTER is a also a very robust and solid piece of equipment.



This unit is built to suit plows equipped with the 22" SHANK. The coulter 16" COULTER DISCS. The unit has built in castoring action. It is adjustable in fore aft positioning, and in height and in castoring angle. The mechanism is bolted to the plow frame with our patented single L-bolt system. This allows easy sideways adjustment and simple and quick attachment and removal. The bearing system and disc mounting is an HT Holden configuration. The YEOMANS 16" COULTER is a very robust and solid piece of equipment.





"Jungle Coulter fitted with Adjustable Fertiliser Boot and Scraper Blades."

#### ■ JUNGLE COULTER

The JUNGLE COULTER as its name implies is made to go through really heavy trash. It must be fitted to | and |A SERIES plows as they all have an extra top beam, and this is the beam on which the JUNGLE COULTER is mounted. It is an extremely strong heavy duty coulter unit. It was built to cut through sugar cane trash to allow for deep working with a following Yeomans shank. There are two models, one uses HT Holden designs and configurations and is equipped with 26" (660mm) diameter discs. The heavier unit is fitted with 2" (50mm) axles and bearings and drilled to the popular "Jeep" - FI00 pattern. This takes a 30" (760mm) diameter straight disc. A fertiliser placement shoot can be incorporated if required which includes replaceable wiper blades that are designed to constantly clean these big discs as they

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### **CRUMBLE ROLLERS**

YEOMANS CRUMBLE ROLLERS are used in a wide range of applications, from general broadacre farming through to sugar cane and pasture renovation. They are all heavy duty pieces of equipment built to:

- Aid floatation in heavy conditions
- ◆ Create a level surface after deep working
- Enable accurate depth control
- Reduce crusting of soil surface
- Create a friable medium textured surface

• The attachment system on the YEOMANS CRUMBLE ROLLER allows these unit to be easily retro-fitted to existing frames.



#### FIXED HEIGHT, MANUAL ADJUSTMENT ROLLER

To adjust the height with this unit, the plow is lifted with the three point linkage and the roller position is then locked wherever desired. The crumble roller again acts as the plow's depth control. If the plow is lifted with the three point linkage to reduce the load when the going gets extra hard, the roller can be set so as to still roll over the ground. Thus the maximum cultivation depth can be pre-set with the roller, but when not at this depth the roller is allowed to "float". The degree of this float is also adjustable. The roller is the same as with the HYDRAULIC LIFT CONTROL model being 26" (660mm) in diameter with 2" (50mm) angle cross bars set with the same ground surface levelling offset. Units differ only in roller length.

#### YEOMANS STUMP JUMP CRUMBLE ROLLER ▶

This roller is designed exclusively to suit the Yeomans Hydraulic Stump Jump Plow. It is made for use in really rough conditions. There are actually two independent stump jump actions that protect the roller. They can operate separately or together. If the shank point hits a really immovable object the shank goes through its jump action and takes the roller with it to clear the obstruction. If the shank point just misses the rock but the roller doesn't, then the roller can lift and roll over the rock by directing excess oil into all the other rollers.

We know of no other crumble roller system that has this unique ability.

The rollers are attached with heavy "clips" and can be removed in seconds. No tools are required. The roller mount mechanism is then left permanently attached to the shank and in no way affects other plow operations. This is also a feature exclusive to the Yeomans Plow range.



#### A HYDRAULIC LIFT CONTROL MODEL

These models are for three point linkage and trailing model plows. They can be used as a trouble free constantly adjustable depth control system. The rollers are 26" diameter (660mm). The sixteen cross bars are 2"x 2" by  $^1/4$ " (50mm x 50mm by 6mm thick) angle. Each angle piece is installed with a slight offset to noticeably improve the surface levelling effect. Units differ only in roller length. The Yeomans Plow pulls itself into the ground and so to insure the plow always stays dead level cross ways the phasing cylinders that come with the unit are mounted each end of the roller. The hydraulic system comes complete with all hoses and fittings.

#### **DUAL CRUMBLE ROLLERS**

For sugar cane and other row crop applications. These units are illustrated on page 22. They are a barrel design to suit inter row use. The full diameter is 31" (785mm). They are also 31" wide. Cross bars are pre curved heavy 2" angle. The units can be easily retro-fitted. They ideally suit J and JA frames. Their big application is in sugar farming, and in that, they are used very extensively.



Page 16 Section 5

# SELECTING THE BEST PLOW FOR YOUR OWN APPLICATION

The frame width is the first thing to decide. As the plow will often be working below all previous cultivation depths, it is effectively working virgin country so the frames are made particularly strong. Frame extensions can never be as strong so don't get an undersize frame. Tynes can always be added later if the frame is wide enough to take them. Select a frame by allowing at most about 10 to 12 horsepower per foot width of frame. That's about 25kW per metre.

To illustrate model numbers in the plow part number L43-II, the L indicates it's a three point linkage plow, the 43 indicates it's 43" overall across the front and rear tool bars, the -II indicates the plow is approximately II feet wide.

The number T74-18SD indicates, T for trailing model, 74 for 74" distance across the toolbars, 18 for approximately 18 feet wide and the SD or LD, for Short Drawbar or Long Drawbar. Short drawbars generally are on smaller plows, long drawbars on generally bigger plows.

3 Point Linkage or Trailing model. Almost invariably an "applications" choice. But as a general guide 3PL up to -9 (9 foot or 3 metres frame width). ---From -9 to about -16 either 3PL or Trailing. ---Above about -16 generally Trailing.

Number of tines or legs or shanks (we generally use the term "shanks"). In use, horsepower required per shank will depend totally on soil conditions and depth of cultivation. As soil fertility develops, horsepower requirements will decrease progressively and more tynes can be fitted later, if required.

Select the number of shanks to suit the application. For pasture development or pasture renovation shanks should be set about 20" or half a metre apart. So initially fit your plow with sufficient shanks to suit these spacings. For soil improvement it is better to cover more ground at wider spacings than less ground at closer spacings.

Yeomans Plow frames are designed to simultaneously cater for both 13" or one third metre shank spacings. Front to rear beams are also spaced to give as many as possible of all the other popular shank spacings in common use. Generally spacings can be selected on all frames. If some particular, or unusual row spacing is required, and not already available on a standard frame, then for a nominal charge these spacings can be allowed for.

Shear pin system or stump jump. The Yeomans Shear Pin System (see Page 5) is almost certainly the cheapest, the strongest and the easiest to change, of any shear pin system in use anywhere in the world today. But to make your decision harder, our stump jump concept is also way ahead of the field. See page 6. Our stump jump system is expensive but if basalt boulders or outcrops or huge stumps make the land unplowable and almost unuseable, then go for the stump jump system. The rise in the value of your land will far exceed the extra cost in ensuring you're able to loosen and aerate your subsoil and rapidly manufacture topsoil

#### **HOW TO USE**

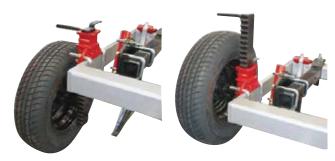
When plowing in previously worked ground, set the depth at two or three inches (50mm to 80mm) below the old worked depth. In virgin country a depth of six to eight inches (150mm to 200mm) is a good general rule. From an economics point of view, initial very deep working is often pointless as soil enrichment is a progressively deepening process. Excess depth will not increase the rate of soil development. The above suggested cultivation depths will already create an enormous volume of loosened and available subsoil for plant roots to work on. Excessive depth is unnecessary.

When is the best time to start using the plow? When asked P.A. Yeomans always answered "If you want to improve your soil, then start plowing the next day after you buy one."

## **YEOMANS**

### AWARD WINNING DEPTH CONTROL SYSTEM

The Yeomans Ripple Bar depth control is a great system. It is virtually unbreakable and indestructible. It never jambs. Depth is adjusted in seconds, and no tools are required. The wheels can be placed anywhere on any for and aft beam of your plow. Then for transporting the plow around the place, the wheels are simply turned side ways and mounted on the front and rear beams. Now the plow can be end towed behind a car or ute', and at virtually any reasonable speed.



Section 6 Page 17

### R56 PLOWS

#### R For Raspberry and 56 for 56" total over all frame width.

Now popular in California's San Joaquin and Central Valleys!

The R 56 plow is ideal for use in raspberries, blackberries, vineyards and similar row crop applications. It allows you to cultivate between very narrow rows given the R56 has a total frame width of only 56" [1.42m]. It couldn't really be any wider, and neither could it be much narrower, to be able to do everything that can be done and is wanted to be done with the plow.



R56 with OCS26C (26") shanks and Crumble Roller

Yeomans gauge or depth wheels can be mounted on rear pointing extension posts. The spacing between the wheels can be adjusted to run behind the shanks. Three point hitch spacing is set to fit most tractors.

The frame accepts up to 5 shanks at 12" spacing and up to 3 shanks with pasture coulters. Frame can be used with either our 22"; 26"; 31"; or BIG-Y Adjustable shanks.

The R 56 - Crumble Roller is 48" wide and 26" in diameter. It attaches with four  $\frac{3}{4}$ " U bolts. The U bolts bring the total over all width up to 57  $\frac{1}{2}$ " maximum. The roller mounts are adjustable fore and aft. The roller is height adjusted using a standard 12" by 2  $\frac{1}{2}$ " or 3" hydraulic ram or provision is there to operate using 8" or 12" screwed tractor links. The roller mounting frame itself is fabricated at a 6 degree vertical offset and so can be turned upside down to give an additional 6" of height adjustment. Mounting other equipment on the Yeomans R 56 can be done by using any of the eight mounting holes sitting top and bottom of the main plow beam. Fitting and removing parts is best done with the Yeomans R 56 pinned to the tractor's three point hitch. It's much easier.



Crumble Roller Manual Ratchet Ram Height adjuster



Crumble Roller Hydraulic Ram Height adjuster

Page 18 Section 1

## SB & L34SJ SERIES PLOWS

The SB or single beam series with 22" or 26" rigid shanks and the L34SJ series for Stump Jump shanks were developed to provide a versatile plow frame for small horsepower tractors, especially on steeply sloping terrain. The frames allow for various spacings with up to seven shanks in the case of the larger model SB range. Although it's only a single beam frame the SB frame is extremely strong and so ideal for use in vineyards and orchards where a compact frame is often a necessity.



L34SJ-8, with the Stump Jump Shanks in action



First time inter row cultivation in vineyard to re-build fertility.

Optional attachments to allow alternate positioning of both shanks and depth control wheels further increases the plow's versatility. Crumble rollers can be fitted. Also incorporated in the design is allowance for the mounting of rotary hoes or power harrows. Although only a single beam, the design also allows for coulters to be mounted on the tool bar. The standard hitch is Category II. Other Categories should be nominated when ordering. A rear mounting extension can also be fitted for added versatility.

Standard Models SB-6, SB-8, SB-10, SB-11, L34SJ-6, L34SJ-8, L34SJ-10.

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## **GP39 SERIES**

The GP39 SERIES with its 22 INCH SHANK is ideal for general use and with small or low horsepower tractors. The main beams are 39" (990mm) over all, front to rear. The GP39 models were developed specifically as a very economical and versatile plow for general purpose use. Hence GP. The two beams, 39" (990mm) over all, spreads the shanks and eliminates "slabbing" which can occur between adjacent shanks when subsoiling in some undeveloped soil types. The frames are based on a standard 13" spacing (actually one third of a metre, 333mm). Like all Yeomans shanks the 22" is movable for varying the different spacings. The 16" Coulter assembly was specially made for the GP39 Model.



**GP39-8 Frame** - In Action. The GP39-8 set up with Depth Wheels, five 22" Shanks and 16" Coulters



GP39-8 Set up with Depth Wheels, five 22" Shanks and 16" Coulters

The GP39 Frames are designed to be used with the latest Yeomans SHANK with its 22" (560mm) under frame clearance. The 22" SHANK has a 1/2" (12.7mm) shear pin which ensures a tip break force between 3 and 3.5 tonnes. This guarantees the GP39 will rip through the toughest of soils.

Standard Models GP39-6, GP39-8, GP39-10.

Page 20 Section 1

## **L43 AND L60 SERIES**

The L43 and L60 SERIES plows provide a universal plow frame for all types of cultivation and to suit a full range of tractor horse powers. Smaller models in the series have beams 43" overall. Larger models are 60" overall; otherwise frames are the same. All plows in this series have the 26" Shank as standard.

With all L43 and L60 models, Category 11/3N hitch is standard and also accepts Category 11 quick hitch. If Category 111 Narrow or Category 111 quick hitch is required, this must be nominated when ordering. There is no charge.

All L43 and L60 frames allow for the mounting of 18" YEOMANS COULTERS on both front and rear toolbars. They are also structured to accept YEOMANS CRUMBLE ROLLERS.

Some of the many uses of this series include cultivation for pasture renovation, grain cropping, vegetables and for cultivation in orchards and vineyard. For three point linkage tractors this is the "do anything" plow.

Standard Models: L43-9, L43-10, L43-11, L43-14, L60-16, L60-19.



L43-9 with five 26" Shanks and 18" Coulter Happily Subsoiling a Kikuyu Pasture



L43-11 with nine 26" Shanks



L43-10 with Hydraulic Crumble Roller

Section I Page 21

## **JAND JA SERIES**

These two beam frame types were developed specifically to cater for the varied cultivating requirements of Australian sugar cane farming. They are generally configured to allow for both 60" or 1.5 metre row spacings. Intermediate spacings are at 15" and 375mm, among others. Both frames provide for multiple positioning of shanks and coulters for stool splitting, side row cultivation and center row cultivation. The 26" SHANK is standard on the J and the JA models.



J-9 Fitted with Two Shanks and Yeomans Dual Crumble Rollers



JA-9 Deep Working Sugar Cane

The JA-9 model has an arched frame (hence the A) allowing cultivation with well established plants; and also for where stools are planted on hills. It comes complete with a bolt-in rear toolbar insert to infill the arch when not required. Also an optional bolt-in front toolbar insert is available to extend the frame capacity to allow for attaching seven shanks for general plow-out. (Code; 4JA-9 means four 26" SHANKS mounted on a JA-9. The JA model plows is 8'9" wide (2.67m) or approximately 9 feet, hence the -9).

The J model frames are available from a two shank unit through to an eleven shank unit. The three J model frames cater for either one, two or three row cultivation. (Code; 2J-9 means two 26" SHANKS mounted on a single row (8'9") 2.67 metres wide frame. They are single row frames.)

The J-II is a two row frame (II'3") 3.43 metres wide with 9 26" Shanks. There is also a three row model, the J-I4 at (I4'7") 4.45 metres wide.

All frames in both models have an extra elevated front beam on which the heavy YEOMANS JUNGLE COULTER can be mounted.

Both Single and Dual HYDRAULIC CRUMBLE ROLLERS can be fitted to all these models providing a superior level of finish when deep working in both worked soil, and soil with a trash blanket cover. The roller mounting allows easy attachment, or removal at any time.



Standard Models J-9, J-11, J-14, and JA-9.

■ J-9 Fitted with 7 Shanks and a Yeomans Single Crumble Roller

Page 22 Section 2

# **L65 SERIES**

#### L65 SERIES

All the L65 models can be configured as three point linkage plows, trailing model plows or, if required, built with both capabilities. Apart from the single beam L34 SERIES the L65 SERIES, with its wider beam spacings, is the most suitable frame for three point linkage STUMP JUMP units. The L65 comes standard with 26" SHANKS or STUMP JUMP. It will also comfortably accept 31" SHANKS and BIG-Y SHANKS.

The series was developed as a multi purpose design and so can be built to cater for even very special row crop requirements. Front to rear beams are 65" (1.65m) over all, but a third beam sits just behind the three point linkage hitch locations. This beam gives the L65 its ability to cater for just about any variation in shank and wheel positioning.



L65-11, Trailing Model / Linkage Plow fitted with 26" Shanks.



L65SJ-11 Three Point Linkage Stump Jump Model.

Three point linkage depth wheels can be mounted on the inner front to rear beams. By this means, for example, if it is required the tyres can be set to run in the furrows. By modifying the locations of the front to rear beams during manufacture an L65 frame can cater for what ever crop row spacings you require. Just let us know and it will be done.

A special cross beam sits over the top of the plow's main front beam so at any time a trailing model depth control system can be bolted in. The L65 is a wonderful plow for contract work.

Standard Models: L65-10, L65-11, L65-14, L65-16, L65-19

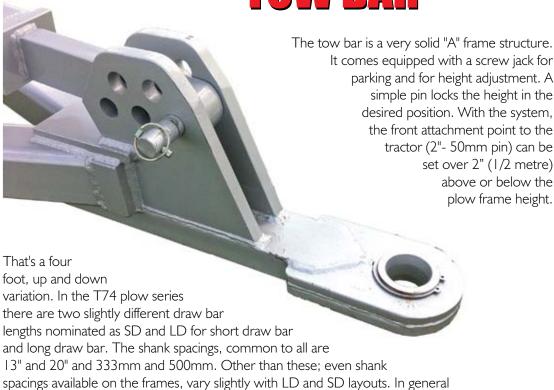
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### TRAILING MODEL DEPTH WHEELS



The Yeomans system comes as an easily fitted bolt on unit. Because it is a bolt on unit and self contained, it's simple to adjust sideways for wheel spacings variations. It comes with either a single axle or dual axles. The standard tyre size is a high floatation 11.00 x 16 - 12 ply multi-rib tyre. The system is controlled by self phasing hydraulic cylinders.

# YEOMANS TRAILING MODEL TOW RAR



the smaller frames use the SD and the larger frames, the LD draw bars.

## TRAILING MODEL PLOWS

Trailing model plows come in three overall front to rear beam spacings. All can be fitted with any of the Yeomans shanks. The wheels and draw bar system are described on the previous page. (Code; T74-20LD is a trailing model plow, that's the T. It is 74" over all the front to rear beams and it has a Long Draw bar.)

#### **T123 SERIES**

The bigger 123" (3.123m) front to rear spacing on this three beam model allows the wheels to be moved to any bay position. For Stump Jump Plows it gives much better clearance and is the frame to select for these units. They come equipped with 26" SHANKS or STUMP JUMP SHANKS.

Standard Models:

T123-12, T123-15, T123-18, T123-21 T123-25.



T123SJ-15 with thirteen Stump Jump Shanks at 13" spacing.

#### **T92 SERIES**

Trailing model plows come in three overall front to rear beam spacings. All can be fitted with any of the Yeomans shanks. The wheels and draw bar system are described on the previous page.

Standard Models T92-12, T92-14, T92-18, T92-21, T92-25.



T92-18 with 26" Shanks.

#### **T74 SERIES**

These plows have two beams, spaced 74" (1.88m). Wheels can be located in a variety of positions. They are the most popular models in the smaller range. They come equipped with 26" SHANKS.

Standard Models T74-8 SD, T74-13 SD, T74-16SD, T74-18 SD, T74-20 SD, T74-14 LD, T74-18 LD, T74-20 LD, T74-22 LD, T74-27 LD.



T92-12 with 26" Shanks showing BRAKE-OUT in front of the shanks.

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## **FOLDING WING PLOWS**

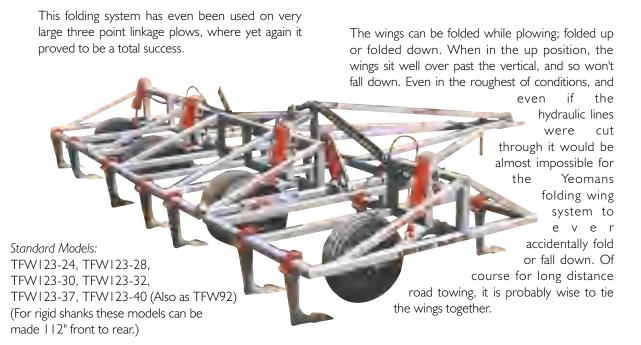
#### TFW92 and TFW123 SERIES

All trailing model plows can be built with folding wings for road and gate clearance. The three beam plows, the T92 and T123 series suit the mechanism best. These plows can also be used for deep working with the wings folded. It's a very strong and robust system. Plows are built up to 40 feet (12 metres) wide. Code; T trailing, FW folding wing. They come equipped with 26" SHANKS or STUMP JUMP SHANKS.

The hydraulic folding wing mechanism on Yeomans Plows, we developed over twenty years ago. The only changes over the ensuing years has been a general overall increase in strength, as the wing sizes got bigger. The ram hoses plug into, and use, normal 1,800 psi and 2,000 psi tractor oil supply. The system is trouble free, and totally reliable. It's almost fool proof.



Cultivating with wings folded.



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### YEOMANS

ALL COMPONENTS on all Yeomans equipment are guaranteed for a minimum of two years. Such items as tyres, tubes, wheels and other commercial components have to be limited to the guarantee given to us by our suppliers.

### PLOWS AND EQUIPMENT ARE INCREDIBLY TROUBLE FREE PIECES OF MACHINERY

THE FRAME OF A YEOMANS PLOW is an extremely strong structure and, in normal use, is almost indestructible. If you bend a frame send it back and we'll fix it; no charge. Sometimes however, very small plows are hooked up to very big tractors. The plow still won't break but continued use under high loads can sometimes fatigue the metal at joints in the frame. It is impossible to warrant against this type of metal fatigue. Metal fatigue will be first seen as a hairline crack. Simply vee out the crack and fill with weld metal. The weld heat also re-normalises and re-strengthened the adjacent metal.

THE STEEL CASTINGS ON YEOMANS PLOWS, we guarantee against any breakage whatever for at least four years from dispatch from the factory. Guarantees are also ex-factory. In-ground wearing items, such as Wombat points, will of course be apportioned a wear component when replaced.



Basalt Boulders in South East Queensland.



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