



# *OPERATORS MANUAL*

&

# *WARRANTY FORM*

*Gavhall Pty Ltd, trading as KANGA FARM EQUIPMENT, would like to thank you for choosing one of our implements. Kanga Farm Equipment has manufactured three point linkage implements to handle the harsh Australian Conditions, since 1982.*

*All new Kanga Farm Equipment Implements are backed with a 12 month comprehensive warranty, against faulty workmanship and/or materials, under normal working conditions and service, as outline in this manual. Your warranty maybe considered void if any damaged to the implement is caused by operator abuse, neglect, or if any unauthorized modifications have been made.*

*Kanga Farm Equipment and its Distributors/Dealers are not responsible for any transportation cost incurred in the repair or replacement of parts in either a successful or non-successful warranty claim. All implements must be returned to the manufacture for warranty assessment.*

*This warranty does not exclude any conditions implied by the Trade Practices Act 1974, or any other relevant legislation.*

*The information contained in this manual was current at the time of printing and has been compiled especially to assist you with the Implement that you have purchased. It is of the utmost importance that you read this manual, understand the context and **carry out a risk assessment** before operating the implement.*

*Please be aware that in an effort to bring you better products we are always implementing continuous improvements that may change the designs and specifications of the Implement. In doing this, Kanga Farm Equipment together with its Dealers and Distributors are under no obligation to implement these changes, free of charge, on any previously delivered Implement*

## TO THE DEALER

Assembly and proper installation of this product is the responsibility of the KANGA FARM EQUIPMENT dealer. The dealer must complete all items on the Warranty Registration & Installation Form included in this manual before releasing the implement to the new owner.

Both dealer and customer must sign the registration, which certifies that all Dealer Checklist items have been completed. The dealer must return a copy of the Warranty Registration & Installation Form to Kanga Farm Equipment. Reminders about Warranty Registration that have not been returned will be sent out to demonstrate that reasonable attempts have been made to ensure dealers complete risk assessment and pre-delivery obligations.

## TO THE OWNER

Read this manual before operating your KANGA FARM EQUIPMENT implement. The information presented will prepare you to do a much better and safer job. Keep this manual handy as a reference. Ensure you carry out and keep up to date a Risk Assessment and that all operators read the manual carefully and become acquainted with the adjustments and operating procedures before attempting to operate. Keep a record of the risk assessment and that the operator has read and understands the correct operating procedures as outlined in this manual.

The implement you have purchased has been carefully engineered and manufactured to provide dependable and satisfactory use. Like all mechanical products, it will require routine cleaning, upkeep and maintenance. Lubricate the implement as specified. Observe all safety information in this manual and safety decals on the implement.

Throughout this manual the term **IMPORTANT** is used to indicate that a failure to observe can cause damage to the equipment. The terms **CAUTION**, **WARNING** and **DANGER** are used in conjunction with the Safety-Alert Symbol (triangle with an exclamation mark) to indicate the degree of risk to your personal safety.



**This Safety-Alert Symbol indicates a hazard and means ATTENTION! BE CAREFUL! YOUR SAFETY IS INVOLVED!**



**DANGER** indicates an imminently hazardous situation, which if not avoided, will result in death or serious injury.



**WARNING** indicates a potentially hazardous situation, which if not avoided, could result in death or serious injury.



**CAUTION** indicates a potentially hazardous situation, which if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

## GENERAL INFORMATION

The purpose of this manual is to assist you in operating and maintaining your KANGA implement. Read it carefully. It provides information and instructions that will help you achieve years of dependable performance. These instructions have been compiled from extensive field experience and engineering data. Some information may be general in nature due to the unknown and varying operating conditions. However, through experience and these instructions, you should be able to develop procedures suitable to your particular situation.

The illustrations and data used in this manual were current at the time of printing, but in an effort to bring you better products we are always implementing continuous improvements that may vary your implement slightly in detail. We reserve the right to redesign and change the machine as may be necessary without notice.



**Some illustrations in this manual show the Digger with Safety Shields removed to provide a better view. The Slasher should never be operated with any safety shielding removed.**

Throughout this manual, references are made to right and left direction. These are determined by standing behind the equipment facing the direction of forward travel. Blade rotation is as if viewed from the top.

## TABLE OF CONTENTS

<b>Introduction</b> .....	Front & 2
<b>General Information</b> .....	2
<b>Post Hole Diggers</b> .....	5
Specifications .....	6 - 7
Safety Rules .....	8 - 9
Safety Decals .....	10
Operation .....	11 - 14
Operating Technique .....	12 - 14
Daily Operators Checklist .....	15
Owner Servicing .....	15 - 17
Replacing Teeth & Pilot .....	17
Trouble Shooting .....	17 - 18
Assembly Instructions .....	18 - 20
Power Take Off Shaft (PTO) .....	21 - 23
Clutch .....	24
Gearbox Information .....	25 - 26
OH & S Compliance Certification .....	27
<b>Box Scrapers</b> .....	28
Specifications .....	29
Safety Rules .....	30 - 31
Safety Decals .....	31
Operation .....	32 - 33
Daily Operators Checklist .....	34
Maintenance .....	34
Assembly Instructions .....	35
OH & S Compliance Certification .....	36
<b>Carryalls, Jib Crane and Bale Handling Equipment</b> .....	37
Specifications .....	38 - 39
Safety Decals .....	39
Safety Rules .....	40 - 41
Operation .....	42 - 44
Maintenance .....	44
Assembly Instructions .....	45
Daily Operators Checklist .....	45
OH & S Compliance Certification .....	46
<b>Cultivators</b> (Eurotiller / "S" Tine / Chisel Plough) .....	47
Specifications .....	48
Safety Rules .....	49 - 50
Safety Decals .....	51
Operation .....	52 - 53
Daily Operators Checklist .....	53
Maintenance .....	54
Assembly Instructions .....	54
OH & S Compliance Certification .....	55

<b>Pallet Forks</b> .....	56
Specifications .....	57
Safety Rules .....	58 - 59
Safety Decals .....	60
Operation .....	60 - 62
Daily Operators Checklist .....	62
Maintenance .....	63
Assembly Instructions .....	63
OH & S Compliance Certification .....	64
<b>Rippers</b> .....	65
Specifications .....	66 - 67
Safety Rules .....	68 - 69
Safety Decals .....	70
Operation .....	71 - 72
Daily Operators Checklist .....	72
Maintenance .....	73
Assembly Instructions .....	74
OH & S Compliance Certification .....	75
<b>Stick Rakes</b> .....	76
Specifications .....	77
Safety Decals .....	77
Safety Rules .....	78 - 79
Operation .....	80 - 81
Daily Operators Checklist .....	81
Maintenance .....	82
Assembly Instructions .....	82
OH & S Compliance Certification .....	83
<b>Harrows</b> .....	84
Specifications .....	85
Safety Decals .....	85
Safety Rules .....	86 - 87
Operation .....	88 - 89
Daily Operators Checklist .....	90
Maintenance .....	90
Assembly Instructions .....	90
OH & S Compliance Certification .....	91
<b>Dealer' Pre-Delivery Checklist</b> .....	92
<b>Warranty Registration and Installation Form</b> .....	93



## *RIPPERS*

*H Range 3 Tine*

*M Range 3 Tine*

*H Range Single Tine*

*M Range Single Tine*

*Mini Range Single Tine*

*Pipelayers*

## SPECIFICATIONS

### Mini Range Single Tyne Ripper

3 – Point Linkage .....	Category 1
3 – Point Linkage Type .....	Double Clevis
Frame Reinforcing .....	Rolled Hollow Section (RHS)
Frame Material Dimensions .....	65 x 65 x 5
Point .....	Carbon/Chrome Spring Steel Reversible & Replaceable
Tyne Material .....	130 x 25
Tyne Leading Edge .....	Chamfered
Max. Working Depth .....	350mm (14")
Overall Width .....	625mm
Overall Height .....	900mm
Approximate Weight .....	30 kg
Tractor Horsepower (hp) .....	15 – 25

### M Range Single Tyne Ripper

3 – Point Linkage .....	Category 1
3 – Point Linkage Type .....	Double Clevis
Frame Reinforcing .....	Rolled Hollow Section (RHS)
Frame Material Dimensions .....	100 x 100 x 5
Point .....	Carbon/Chrome Spring Steel Reversible & Replaceable
Tyne Material .....	130 x 32
Tyne Leading Edge .....	Square
Max. Working Depth .....	400mm (16")
Overall Width .....	800mm
Overall Height .....	1000mm
Approximate Weight .....	60 kg
Tractor Horsepower (hp) .....	25 - 45

### H Range Single Tyne Ripper

3 – Point Linkage .....	Category 1
3 – Point Linkage Type .....	Double Clevis
Frame Reinforcing .....	Fully Welded gussets
Point .....	Carbon/Chrome Spring Steel Reversible & Replaceable
Tyne Material .....	130 x 32
Tyne Leading Edge .....	Chamfered
Max. Working Depth .....	550mm (22")
Overall Width .....	850mm
Overall Height .....	1200mm
Approximate Weight .....	80 kg
Tractor Horsepower (hp) .....	25 - 65

### Pipe Layer

Attachment .....	Bolts to M&H Range Rippers
Tube .....	80mm NB Pipe
Overall Height .....	1100mm
Approximate Weight .....	20 kg

**M Range Three (3) Tyne Ripper**

3 – Point Linkage .....	Category 1
3 – Point Linkage Type .....	Double Clevis
Frame Reinforcing .....	Rolled Hollow Section (RHS)
Frame Material Dimensions .....	100 x 100 x 5
Point .....	Carbon/Chrome Spring Steel
	Reversible & Replaceable
Tyne Material .....	130 x 25
Tyne Leading Edge .....	Chamfered
# of Tines .....	3
Height Adjustment .....	3 Height Settings
Max. Working Depth .....	550mm (22")
Overall Width .....	950mm
Overall Height .....	1200mm
Approximate Weight .....	120 kg
Tractor Horsepower (hp) .....	25 - 45

**H Range Three (3) Tyne Ripper**

3 – Point Linkage .....	Category 2
3 – Point Linkage Type .....	Double Clevis
Frame Reinforcing .....	Rolled Hollow Section (RHS)
Frame Material Dimensions .....	150 x 150 x 9
Point .....	Carbon/Chrome Spring Steel
	Reversible & Replaceable
Tyne Material .....	130 x 32
Tyne Leading Edge .....	Chamfered
# of Tines .....	3
Height Adjustment .....	3 Height Settings
Max. Working Depth .....	900mm (36")
Overall Width .....	2000mm
Overall Height .....	1500mm
Approximate Weight .....	325 kg
Tractor Horsepower (hp) .....	65 - 90

## SAFETY RULES & ACCIDENT PREVENTION



**ATTENTION! BE CAREFUL! YOUR SAFETY IS INVOLVED!**



Safety is a primary concern in the design and manufacture of our products. Unfortunately, our efforts to provide safe equipment can be wiped out by a single careless act of an operator.

In addition to the design and configuration of equipment, hazard control and accident prevention are dependent upon the awareness, concern, prudence and proper training of personnel involved in the operation, transport, maintenance and storage of equipment.

It has been said, *“The best safety device is an informed careful operator.”* We ask you to be that kind of operator.

- Customers **MUST** carry their own Risk Assessment and/or “HazCheck” on every implement on their property.
- Safety instructions are important! Read all attachments and unit manuals; follow all safety rules and safety decal information. Failure to follow instructions can result in serious injury or death.
- If you do not understand any part of this manual and need assistance the Department of Agriculture, Occupational Health & Safety Offices, any Agricultural School or college and your local dealer should be able to direct you on where you can receive appropriate training. No operator however experienced in farm machinery operation they maybe, should attempt to use any piece of machinery that they have not been competently trained to use.
- Keep hands and body away from pressurized lines. Use paper or cardboard, not hands or other body parts to check for leaks. Wear safety goggles. Hydraulic fluid (oil) under pressure can easily penetrate the skin and will cause serious injury or death.
- Make sure that all operating and service personnel know that if hydraulic fluid (oil) penetrates the skin, it must be surgically removed as soon as possible by a doctor familiar with this form of injury or gangrene, serious injury or death will result. **CONTACT A PHYSICIAN IMMEDIATELY IF FLUID ENTERS SKIN OR EYES. DO NOT DELAY.**
- Know your controls and how to stop quickly in an emergency.
- Operators must be instructed in and be capable of the safe operation of the equipment and all controls. Do not allow anyone to operate this equipment without proper instruction.
- Do not allow children or untrained persons to operate equipment.
- Check that all hardware is tight and properly installed.
- Always wear relatively tight fitted clothing to avoid entanglement in moving parts. Wear heavy-duty, rough-soled boots and protective equipment for eyes, hair, hands, hearing and head.
- Ensure implement is properly attached, adjusted and in a good condition so that it can be operate safely.
- Tractors **MUST** be fitted with Roll Over Protection Structure (ROBS) or ROBS Cap. It is also advisable that your tractor be fitted with a seatbelt, where fitted it must be worn at all times. Falling from your tractor can result in death from being run over or crushed. If your tractor is fitted with a folding ROBS, keep it in the “locked up” position at all times.
- Inspect chains, shackles, deflectors and any wear parts for damage. Replace if damaged.
- Remove any debris that has accumulated on the implement, tractor or engine to avoid fire hazard.
- Ensure all safety decals are installed. Replace if damaged.
- A minimum 20% of tractor and equipment weight must be on the tractor’s front wheels with implement in the transport position. Without this weight, tractor could tip over causing personal injury or death. The weight maybe attained with a loader, front wheel weights, and ballast in the tires or front tractor weights. When attaining the minimum 20% weight on the front wheels, you must not exceed the ROPS max ballasted mass certificate. Weight the tractor and implement. Do not estimate.
- Watch for hidden hazards on the terrain during operation and avoid any hazards or object that could cause injury or damage.
- Inspect operating area, remove where possible any stones, branches or foreign objects that may cause injury or damage. It is very important to always watch for foreign objects in the area you are operating and avoid any that could cause injury or damage.



- When working in populated areas always place signs in the area to alert people or vehicles that may pass. Operation must be stopped when anyone comes within 50 meters.
- Keep all people and animals away from the implement during start up, operating and when stopping.
- Do not operate the implement or tractor while under the influence of drugs or alcohol.
- Operate only in daylight or good artificial light.
- Keep hands, feet, hair, and clothing away from moving parts while engine is running.
- Do not carry persons or objects on the Implement or tractor during work or while in transit.
- For transportation on public roads the operator must ensure that the tractor and implement complies with current State and Federal laws and must strictly adhere to all road traffic regulations in force in his/her particular state.
- Always operate equipment from the seat of the tractor with the seat belt securely fastened especially when operating controls or starting engine. Place transmission in neutral, engage break and ensure all other controls are disengaged before starting tractor engine.
- Look down and to the rear and make sure area is clear and safe before operating in reverse.
- Do not operate on steep slopes. If in doubt set rear axles wider for moderate slopes.
- Do not stop, start or change directions suddenly on slopes', working up and down is preferred.
- Use extreme care and reduce ground speed on slopes and rough terrain.
- Stop implement, then tractor, immediately upon striking an obstruction. Turn off engine, remove key, inspect and repair any damage before resuming operations. Always block implement when inspecting.
- Before commencing any adjustment, maintenance, or cleaning. Always switch off the tractor engine, remove key and wait until all moving parts have come to a complete stop, then ensure the machine is on the ground or on a robust secure support.
- Before dismounting tractor or performing any service or maintenance lower the 3-point linkage and any other raised components (i.e. loader bucket) to the ground. Operate valve levers to release any hydraulic pressure, stop engine, set parking brake, remove key and unfasten seat belt.
- Never place any part of the body underneath the implement or between moveable parts even when engine has been turned off. Hydraulic systems can "creep" (i.e. slowly lower). They may fail or movement of the control levers can cause the implement to drop or rotate unexpectedly causing severe injury or death. Follow Operator's Manual instructions for working on your implement or have servicing carried out by a qualified dealer.
- During routine checks and/or repairs ensure that no one can switch on the tractor or Implement accidentally. Keep the key to the tractor in your pocket.
- For your own safety and that of others and to avoid forfeiting your warranty, use only original spare parts.
- Do not modify/alter or permit anyone else to modify/alter the implement or any of its components.
- Ensure implement is properly attached, adjusted and in good operating condition.
- Frequently check cutting edge blade. It should be free of nicks and cracks and securely fastened.
- Do not handle ground-engaging points with bare hands. Careless or improper handling may result in serious injury.
- Always use genuine Kanga ground-engaging points. Your dealer can supply you with genuine replacement parts.
- Firmly tighten all nuts, bolts, screws and shackles before operating. If worn or damaged then replace immediately.
- Block implements securely for storage.
- Keep children and bystanders away from storage area.
- Kanga Farm Equipment accepts no responsibility or liability for any losses, injuries or damages that may result from failing to observe these safety rules and the safety decals on the implement.

## SAFETY RULES & ACCIDENT PREVENTION

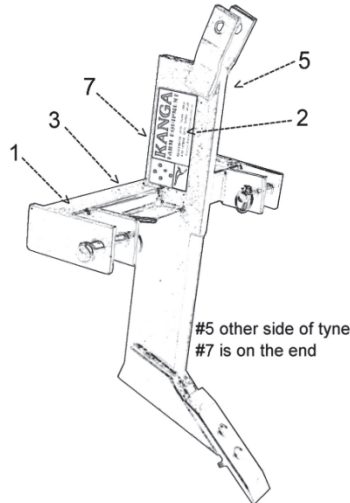


**ATTENTION! BE CAREFUL! YOUR SAFETY IS INVOLVED!**



Replace Immediately if Damaged

### Kanga Single Tyne Rippers



1 – Serial Number Plate



2 – Kanga Logo



3 – Model (i.e. M, H, etc)



4 – Safety Decal K0001



5 – Safety Decal K0002



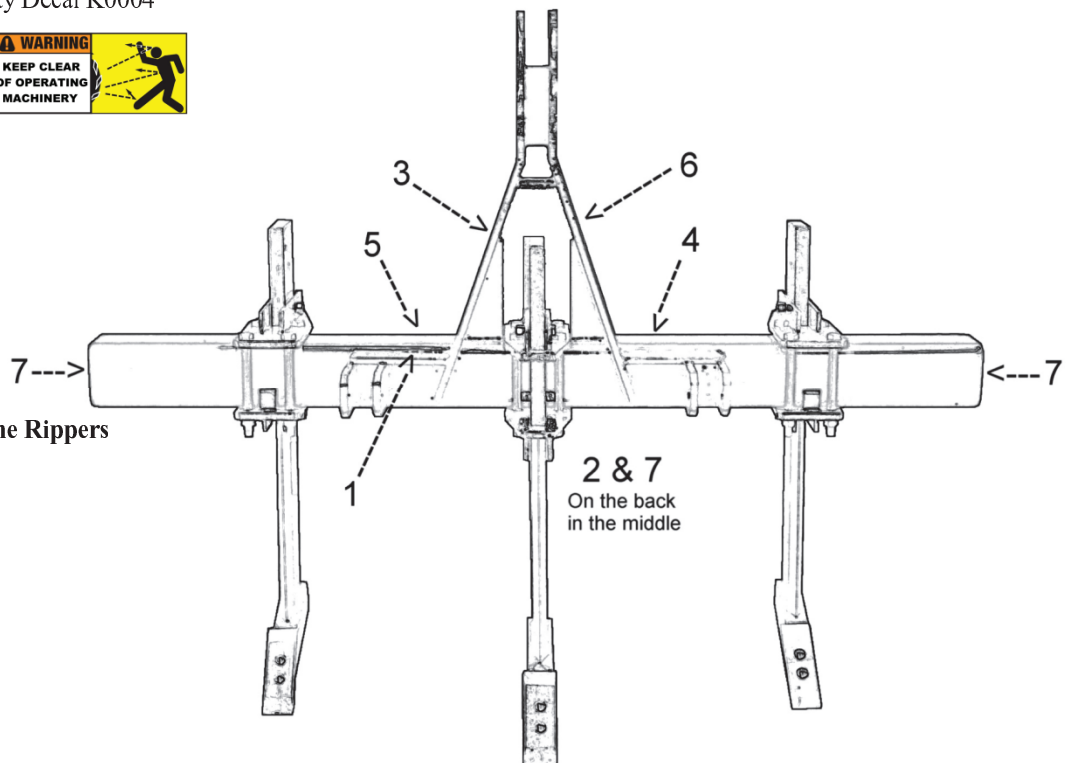
6 – Safety Decal K0003



7 – Safety Decal K0004



### Three (3) Tyne Rippers



## OPERATION

Safety is a primary concern in the design and manufacture of our products. Unfortunately, our efforts to provide safe equipment can be wiped out by a single careless act of an operator.

In addition to the design and configuration of equipment, hazard control and accident prevention are dependent upon the awareness, concern, prudence and proper training of personnel involved in the operation, transport, maintenance and storage of equipment.

It has been said, *“The best safety device is an informed careful operator.”* We ask you to be that kind of operator.

The operator is responsible for the safe operation of this implement. The Operator must be properly trained. Operators should be familiar with the implement and tractor and all safety practices before starting operation. Read the safety rules and safety decal information on pages 68, 69 & 70.

The implements featured in this manual are designed to loosen the soil profile for planting trees, or to increase soil percolation to eliminate standing water problems, soil aeration and general ripping. All machines have reversible and replaceable points and genuine spare parts are available through your local dealer.

### **WARNING**

- Do not allow children or untrained persons to operate this implement
- Keep all people and animals away from the implement during start up, operating and when stopping.
- Keep all persons away from the operator control area when performing adjustments, service or maintenance.
- Never place any part of the body underneath the implement or between moveable parts even when engine has been turned off. Hydraulic systems can “creep” (i.e. slowly lower). They can fail or movement of the control levers can cause the implement to drop or rotate unexpectedly causing severe injury or death. Follow Operator’s Manual instructions for working on your implement or have work carried out by a qualified dealer.
- Keep all persons away from operators control area while performing adjustments, service or maintenance.
- Service work does not require going underneath this implement. Read Operators Manual for service instructions or have work carried out by a qualified dealer.
- No passengers on this equipment.

### **DANGER**

- When operating along roads, pathways or highly populated areas always place signs in the area to alert people or vehicles that may be passing. Operation must be stopped when anyone comes within 50 meters.

### **CAUTION**

- Stop implement, then tractor, immediately upon striking an obstruction. Turn off engine, remove key, inspect and repair any damage before resuming operations.
- Always wear relatively tight fitted clothing to avoid entanglement in moving parts. Wear heavy-duty, rough-soled boots and protective equipment for eyes, hair, hands, hearing and head.
- A minimum 20% of tractor and equipment weight must be on the tractor’s front wheels with implement in transport position. Without this weight, tractor could tip over causing personal injury or death. The weight maybe attained with a loader, front wheel weights, and ballast in the tires or front tractor weights. When attaining the minimum 20% weight on the front wheels, you must not exceed the ROPS max ballasted mass certificate. Weight the tractor and implement. Do not estimate.

## ATTACHING TO THE IMPLEMENT

### **WARNING**

- When connecting the tractor to the implement never stand in between the tractor and the implement and always find somewhere level or flat.

- The implement you have purchased should not be mounted on tractors greater than that specified in the “Specifications: section of this manual.
- Always adjust the tractor lower linkage arms anti-sway devices to prevent implement from swing from side to side during transport and operation. Failure to do so may result in serious injury or damage. Damage like bent and twisted implement towers are **NOT** covered by warranty.
- Before dismounting tractor or performing any service or maintenance lower the 3-point linkage and any other raised components (i.e. loader bucket) to the ground. Operate valve levers to release any hydraulic pressure, stop engine, set parking brake, remove key and unfasten seat belt.
- During routine checks and/or repairs and changing implement settings, ensure that no one can switch on the tractor or Implement accidentally. Keep the key to the tractor in your pocket.

Remove tractor draw bar to eliminate interference with the implement. Attach the implement with the hitch pins supplied to the lower link arms of the tractor and secure with lynch pins. Attach tractor top link to implement top clevis with top hitch pin and secure with lynch pin. Top Link Pin not supplied.

## GENERAL OPERATING

### **IMPORTANT**

- Vibration tends to loosen bolts during operation. All hardware should be checked regularly. It is good practice to check implement before each operation to ensure all hardware is secure.

### **WARNING**

- Only work rippers in a straight line. They are not designed to go around corners and operating with them in this manner will can cause serious injury and damage.
- Do not operate on steep slopes. If in doubt set rear axles wider for moderate slopes.
- Do not stop, start or change directions suddenly on slopes’, working up and down is preferred.
- Use extreme care and reduce ground speed on slopes and rough terrain.
- Watch for hidden hazards on the terrain during operation and avoid any hazards or object that could cause injury or damage.
- Pass diagonally through sharp dips and avoid sharp drops.

Once you have familiarized yourself with the Operator’s Manual, completed the Pre-Operation Checklist and securely attached the Kanga implement to your tractor, you are now almost ready to begin work. Rippers are ideal to loosen the soil profile for planting trees, or to increase soil percolation to eliminate standing water problems. The Kanga M & H Range Single Tyne Rippers can also be used in conjunction with the Kanga Pipe Layer to lay up 60mm poly pipe.

You should able to rip and loosen the soil to the depth of the tine from the cross bar down to the point, and still maintain forward pulling momentum. The more compact the soils, the more horsepower it will take to get the job done. In any case you will need to select a low gear and you may need to make more than one pass, progressively increasing the depth to achieve the maximum depth.

## REMOVING IMPLEMENT FROM TRACTOR

Use the tractors lower linkage arm control to lower the implement all the way to the ground. Turn of tractor ignition and remove key. Firmly apply park break, remove seatbelt (if fitted) and dismount the tractor. Block implement securely for storage with robust secure support, remove lower linkage pins. Slowly move tractor away from implement checking that implement will not fall from blocking.

## DAILY PRE-OPERATION CHECKLIST

(Operators Responsibility)

- Operators MUST carry out a Risk Assessment and/or “HazCheck” for the implement and ensure it is correct for the conditions the implement will be operating.
- Review and follow safety rules outlined in this manual
- Check that implement is properly and securely attached to the tractor
- Check all hardware (i.e. bolts, nuts, shackles, chains, etc.) are properly installed, secured and in good condition.
- Check cutting edge for signs of wear and replace if necessary.
- Inspect area that you will be operating in and remove any object that may cause injury or damage.

## MAINTENANCE

### **⚠ WARNING**

- Before dismantling tractor or performing any service or maintenance lower the 3-point linkage and any other raised components (i.e. loader bucket) to the ground. Operate valve levers to release any hydraulic pressure, stop engine, set parking brake, remove key and unfasten seat belt.
- Never place any part of the body underneath the implement or between moveable parts even when engine has been turned off. Hydraulic systems can “creep” (i.e. slowly lower). They can fail or movement of the control levers can cause the implement to drop or rotate unexpectedly causing severe injury or death. Follow Operator’s Manual instructions for working on your implement or have work carried out by a qualified dealer.
- During routine checks and/or repairs, ensure that no one can switch on the tractor or Implement accidentally. Keep the key to the tractor in your pocket.
- Service work does not require going underneath this implement. Read Operators Manual for service instructions or have work carried out by a qualified dealer.

### **⚠ CAUTION**

- Always wear relatively tight fitted clothing to avoid entanglement in moving parts. Wear heavy-duty, rough-soled boots and protective equipment for eyes, hair, hands, hearing and head.

**Point** – Replace when worn. Always check nuts and bolts are tight.

## BLOCKING METHOD

To minimize the potential hazards of working underneath the implement, these procedures must be followed.

### **⚠ WARNING**

- Never place any part of the body underneath the implement or between moveable parts even when engine has been turned off. Hydraulic systems can “creep” (i.e. slowly lower). They can fail or movement of the control levers can cause the implement to drop or rotate unexpectedly causing severe injury or death. Follow Operator’s Manual instructions for working on your implement.
- During routine checks and/or repairs, ensure that no one can switch on the tractor or Implement accidentally. Keep the key to the tractor in your pocket.
- Service work does not require going underneath this implement. Read Operators Manual for service instructions.

Jack stands with a load rating of 1000lbs or more are the only approved blocking devices for this implement. Do not position jack stands under wheels, axles or wheel supports as components can rotate and cause implement to fall.

When blocking, you must consider the overall stability of the implement. Just placing jack stands under the unit will not ensure your safety. The working surface must be level and solid to support the weight of the jack stands. Ensure jack stands are stable both top and bottom, and implement is approximately level. With full implement weight lowered onto jack stands, test blocking stability before working underneath implement.

Implement should be properly and securely attached to the tractor (see operating section), the brakes firmly set, key removed and both front and rear tractor wheels securely blocked.

## ASSEMBLY INSTRUCTIONS

### **⚠ WARNING**

- Before dismantling tractor or performing any service or maintenance lower the 3-point linkage and any other raised components (i.e. loader bucket) to the ground. Operate valve levers to release any hydraulic pressure, stop engine, set parking brake, remove key and unfasten seat belt.
- Never place any part of the body underneath the implement or between moveable parts even when engine has been turned off. Hydraulic systems can “creep” i.e. slowly lower. They can fail or movement of the control levers can cause the implement to drop or rotate unexpectedly causing severe injury or death. Follow Operator’s Manual instructions for working on your implement or have servicing carried out by a qualified dealer.
- During routine checks and/or repairs, ensure that no one can switch on the tractor or Implement accidentally. Keep the key to the tractor in your pocket.
- Service work does not require going underneath this implement. Read Operators Manual for service instructions

### **⚠ CAUTION**

- Always wear relatively tight fitted clothing to avoid entanglement in moving parts. Wear heavy-duty, rough-soled boots and protective equipment for eyes, hair, hands, hearing and head.

Assembly of this implement is the responsibility of the KANGA FARM EQUIPMENT dealer. It should be delivered to the new owner completely assembled and adjusted for normal conditions.

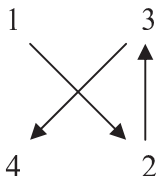
The Kanga Single Tyne Rippers do not require any assembly unless a Pipe Layer is to be fitted. In many cases the Three (3) Tyne Rippers will also be fully assembled however if they are not you will need to follow the following instructions.

#### M Range Three (3) Tyne Ripper

- 1) Place headstock on a robust support and make sure the implement cannot fall.
- 2) Line up one of the tines (they are all the same) to the slotted groove in the middle of the headstock.
- 3) Insert tine then line up the two (2) hole and secure with bolts and nuts supplied.
- 4) Repeat for outer tines.

#### H Range Three (3) Tyne Ripper

- 1) Place headstock on a robust support and make sure the implement cannot fall.
- 2) Layout the top and bottom clamp plates and the long high tensile bolts to attach them to the tool bar.
- 3) Place the top and bottom clamp plates in the desired location on the tool bar and secure with Nuts and Bolts. DO NOT TIGHTEN.
- 4) Line up one of the tines (they are all the same) with the gap in the top and bottom clamp plates and slide tine into position. Secure on the desired height setting with bolt and nut supplied.
- 5) Repeat above process for outer tines.
- 6) Tighten the long high tensile bolts that secure the top and bottom clamp plates together in the following sequence.



Complete dealer checklist when assembly is complete.

## Agricultural Machinery Product OHS Compliance Form

We, Gavhall Pty Ltd t/as Kanga Farm Equipment  
 Of, 16 Cahill Street  
 Dandenong, Victoria, Australia, 3175  
 Telephone: 03-9706-5166  
 Fax: 03-9706-5050

Confirm that the following machine(s)

Kanga Mini Range Single Tyne Ripper  
 Kanga M Range Single Tyne Ripper  
 Kanga H Range Single Tyne Ripper  
 Kanga Three (3) Tyne M Range Ripper  
 Kanga Three (3) Tyne H Range Ripper  
 Kanga Pipe Layer

have had a hazard identification, risk assessment and risk control procedure carried out on a representative model of the aforementioned product(s) in accordance with the Occupational Health and Safety requirements of all states and territories of Australia and where found necessary the appropriate risk control measures have been incorporated in the product specifications.

The Operators Manual contains the necessary Health and Safety information and safety warnings decals are applied to the product where necessary.

Product Description: Rippers / Pipe Layers  
 Model Number(s): H Range – Product Code(s) 10000, 12000  
 M Range – Product Code(s) 11000, 12100  
 Mini Range – Product Code(s) 13000  
 Pipe Layers – Product Code(s) 14000



Signature  
 Bruce J Alcott

Name: Bruce J Alcott Date: 01 / 06 / 2005  
 Position: Managing Director

### Details of the unit assessed for the purpose of compliance

Model #	Serial #	Date of Inspection	Location
Mini Range Single Tyne	060505	04 / 05 / 2005	16 Cahill St Dandenong
M Range Single Tyne	180804	05 / 08 / 2004	16 Cahill St Dandenong
H Range Single Tyne	1010504	03 / 06 / 2004	16 Cahill St Dandenong
M Range 3 Tyne	190704	06 / 07 / 2004	16 Cahill St Dandenong
H Range 3 Tyne	021004	01 / 10 / 2004	16 Cahill St Dandenong
Pipe Layer	17015	23 / 01 / 1997	Dandenong

## PRE-DELIVERY CHECKLIST (Dealers Responsibility)

Inspect implement thoroughly after assembly to be certain it is set up properly before delivering it to the customer. The following checklist is a reminder of points to inspect. Check off each item as it is found satisfactory either before or after corrections or services performed.

- Check all bolts and ensure that they are tight.
- Check all cotter pins and linkage pins and ensure they are properly installed and can be secured.
- Refer to lubrication instructions and lubricate implement.
- Explain the importance of lubrication to the customer and point out all the lubrication points on the implement.
- Check that any “wear points” (i.e. points, blades, edges, tines) have been properly installed.
- Show customer how to make adjustments. Describe the options available for the implement and explain their purpose and how they work.
- Ensure the stability of the tractor has not been compromised with the implement the customer has purchased. Remember a minimum 20% of tractor and equipment gross weight must be on the tractor’s front wheels with implement in the transport position. If you are adding weight to the tractor to attain the 20%, you must not exceed the ROPS max ballasted mass certificate. Weight the tractor and implement. Do not estimate.
- Give Operators Manual to the customer and recommend that customer become familiar with all sections, especially the safety and safe operating procedures.
- Explain to the customer that when transporting the implement on roads or highways, day or night, safety devices should be used to provide adequate warning to operators of other vehicles. Also explain the operator must ensure that the tractor and implement complies with current State and Federal laws and must strictly adhere to all road traffic regulations in force in his/her particular state.
- Check PTO series is correct and that the PTO is the correct length (**post hole diggers only**)
- Check gearbox is properly serviced and seals are in good condition and not leaking. (**post hole diggers only**)

### **▲ IMPORTANT**

**Gearbox was not filled with oil at the factory. It must be serviced before implement is operated. Failure to service will result in damage to the gearbox. You will find a level plug on the side of your gearbox or a guide to the amount of oil required can be found on the same page as the gearbox parts guide.**

- Instruct the customer that they **MUST** carry out a Risk Assessment and/or HazCheck for the implement and the operating conditions.
- Ensure the customer has signed the **WARRANTY REGISTRATION & INSTALLATION FORM** and a copy has been returned to Kanga Farm Equipment, 16 Cahill Street, Dandenong, Victoria, 3175.

Name of person who carried out Pre-delivery: \_\_\_\_\_ Signature: \_\_\_\_\_

Dealership Name: \_\_\_\_\_ Location carried out: \_\_\_\_\_

Date: \_\_\_/\_\_\_/\_\_\_\_\_

Top copy (manufacture’)

Middle Copy (dealer’)

Last page (purchaser’)





WARRANTY REGISTRATION & INSTALLATION FORM

Owners Name: \_\_\_\_\_
Town: \_\_\_\_\_ State: \_\_\_\_\_ P/Code: \_\_\_\_\_

Type of Implement Purchased

- Post Hole Digger Mini Range M Range H Range XH Range (50hp) XH Range (75hp)
Box Scraper 1200mm 1800mm 2400mm
Carryall 4' x 3' 5' x 3'6" 6' x 3'6"
Cultivator Eurotiller (5/7/9/11 Tine) S Tine (2.4m/2.8m/3.0m/3.2m) Chisel Plough (5/7/9/11 Tine)
Pallet Fork 500kg 1000kg
Bale Equip. Spike Silage Fork Adj. Bale Feed Out Fork
Ripper H Range 3 Tine M Range 3 Tine H Range Single Tine M Range Single Tine Mini Single Tine
Stick Rake 1800mm 2400mm 3000mm
Harrows 2400mm 3000mm 3600mm 4000mm (Harrow Rake)
Other (Please Specify) \_\_\_\_\_

Serial Number \_\_\_\_\_

Month of Manufactured: Jan Feb Mar Apr May Jun Jul Aug Sept Oct Nov Dec

Year of Manufacture \_\_\_\_\_ Date of Purchased \_\_\_/\_\_\_/\_\_\_\_\_

Intended areas of use: Paddocks Only Close to Sheds & Buildings Near Roads

- Contracting, please specify: \_\_\_\_\_
Other, please specify: \_\_\_\_\_

I have been fully instructed in the operation of this unit in the actual working conditions that I intended to operate and I am satisfied that I can use it safely. I acknowledge that I have been fully instructed in the care, maintenance, lubrication and that Kanga Implements have been designed for agricultural use in area away from people, animals, roads and property. I understand that there are Federal and State Laws as well as OH&S Standards that dictate how I can operate should I wish to operate along roads or in any populated areas and that it is my responsibility to know and adhere to those laws. I have received a copy of the operating manual and the dealer has instructed me to read the manual in full and carry out my own Risk Assessment before commencing any operations.

Owner's Signature \_\_\_\_\_ Date \_\_\_/\_\_\_/\_\_\_\_\_

- FINAL ASSEMBLY - Checked all hardware to ensure it is firmly tightened as outlined in the Operators Manual. Customer has been instructed on how to make regular checks and tighten ALL hardware (i.e. all nuts and bolts).
LUBRICATION - The implement has been lubricated and oil levels have been checked in all chain/gearbox transmissions. Customer has been instructed on how to check oil levels and lubricate implement.
GREASING & MAINTENANCE - Grease bearings, universals and ensure PTO shaft has been. Instruct customer how to re-grease the implement. Explain to the operator the requirements and repercussions of regular maintenance.
CLUTCH ADJUSTMENT - Check that clutch has been correctly fitted and nuts are tight. Check the clutch has been adjusted for the customer's situation. Instruct customer that an annual service is required.
IMPLEMENT, DRIVESHAFT & TRACTOR COMPATIBILITY - Check implement and PTO compatibility, ensuring the PTO will not foul on the tractor or implement during linkage operation. If PTO was cut make sure that it was re-greased and all spring activated locking pins on the PTO Shaft move freely.
IMPLEMNT & TRACTOR COMPATIBILITY - Check implement and Tractor compatibility. Ensure that a minimum 20% of tractor and equipment weight is on the tractor's front wheels with implement in transport position.
OPERATION PROCEDURES - I instruct the operator on correct procedures and techniques for the type of work they have indicated they intend to carry out. General safe operating procedures can be found in the Operators Manual. Advise customer to carry out a risk assessment and hazard identification of the property and alert the customer to the type of potential dangers they should be looking to avoid.
DANGERS - Instruct customer on the potential dangers of operating the implement. Outline the dangers associated with rotating blades, the possibility of fast moving debris, rotating PTO Shaft and ensure the customer knows that information about safe operating procedures and maintenance are in this Manual
RISK ASSESSMENT - Ensure you instruct customer to complete a HazCheck for the implement and their operating conditions.
OWNERS/OPERATORS MANUAL - Check that the implement has a booklet supplied. Emphasize the importance of reading the Manual. Note manuals can be down loaded from www.farmimplements.com.au

Please tick the boxes above as each point has been carried out.

Dealership Name: \_\_\_\_\_ Pre-delivered By: \_\_\_\_\_
Salesperson's Name: \_\_\_\_\_ Salesperson's Signature: \_\_\_\_\_

Top copy (manufacture')

Middle Copy (dealer')

Last page (purchaser')