

# DINGO™ K9-3

## OPERATION & MAINTENANCE MANUAL



**IMPORTANT:** Become familiar with the contents of this manual before operating the Dingo. This Manual contains Safety, Operation and Warranty Information. Also become familiar with the controls & their proper use before operating the Dingo.



Modified September 2007

# Introduction

Congratulations on purchasing the World's Leading Mini Digger.

In purchasing a Dingo you have obtained a machine of the highest quality and we want you to be totally satisfied as our customer. Please feel free to contact any of our branches for help with service, genuine replacement parts, business and operation tips and any other information you may require.

The information in this manual is current as at September 2007. In the effort to continually improve our products, Dingo reserves the right to change specifications without notice. Please, for critical information, contact your nearest Dingo branch.

When contacting us please have your Dingo Chassis and Model numbers handy. These details enable us to know the specifications of your Dingo.

Best Wishes,

Gary Briggs  
And the entire Dingo Pack.

This manual belongs with your Dingo

Dingo Chassis Number	Dingo Model Number
Engine Type & Serial Number	Date Purchased

**DISCLAIMER:**

Specifications, design & service procedures are subject to change without notice.  
Specifications may vary & may be approximate.

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# Safety

## General Operation

- Read, understand, and follow the instructions in the operation manual before using the Dingo.
- Keep hands, feet and clothing away from all moving parts and hydraulic cylinders.
- Allow only responsible adults who are familiar with the Dingo and its operation to use the Dingo.
- Do not allow any passengers on any part of the Dingo, including buckets and the operating platform.
- Do not refuel with the engine running, or while you or someone near is smoking.
- Do not operate any of the control levers (including auxiliary lever) unless you are standing with both feet on the platform and firmly holding the grip handles.
- Always wear long pants and substantial shoes (no sandals, thongs, tennis shoes, sneakers, shorts or skirts).
- Do not place feet under the platform.
- Watch where you are driving. Always look down and behind, before and while reversing.
- **WARNING** Engine exhaust contains **Carbon Monoxide**, which is an odourless, deadly poison. Carbon Monoxide can kill you. Do not run engine indoors or in a confined space.
- Always lower Dingo arms and/or place attachment on the ground when parking or leaving the Dingo unattended. Always stop the engine if leaving the operators platform.
- **IMPORTANT** Do not carry a load or heavy attachment with the Dingo arms in a raised position. Do not step off the platform with a load raised.
- Never jerk the control levers. Use a steady motion. Slow down before turning. Sharp turns may cause loss of control.
- Stop the engine before making any adjustments to the attachments or the machine.
- **WARNING** Never weld on or near the fuel tank whether it is empty or full.
- Do not operate on or near embankments. Look out for ditches, holes, etc. and beware of traffic when near roads.
- Do not allow any person or animal close to the Dingo or its attachments whilst in operation. Stop the machine if any person or animal comes close.
- Operate only in daylight or good artificial lighting.
- Do not operate the machine whilst under the influence of alcohol or drugs.
- Use extra care while loading or unloading the Dingo onto a trailer or truck.
- Do not touch equipment or attachment parts that may be hot from operation. Allow to cool before attempting to maintain, adjust or service.
- The Dingo is not a toy - Do not allow children to play on it.

**Remember - Safety is your responsibility.**

## Operating on Slopes

**All slopes require extra caution.**

- **Do not** operate on slopes exceeding 15 degrees. If a slope is greater than 5 degrees, only go up and down (not across).

- **Always have the heavy end of the machine uphill.** Weight distribution will change. An empty bucket will make the rear of the machine heaviest, a loaded bucket will make the front of the machine heaviest. Various attachments will change which end is heaviest. If you are unsure, phone us and ask. These same rules apply when loading and unloading the Dingo onto a trailer or truck.

- **Avoid turning on slopes.** If you must turn, turn slowly keeping the heavy end of the machine uphill.

- Do not operate near ditches or embankments, the machine could turn over if a wheel goes over the edge of a cliff or ditch or the edge caves in.

- Do not operate on wet grass, reduced traction could cause wheel slip.

- Remove obstacles such as rocks, tree limbs, etc from the work area. Watch for ruts or bumps as uneven terrain could overturn the machine. Tall grass can hide obstacles.

- Operate in slow speed. Put pump selector valve in slow (turtle) position so that you will not have to stop or shift while on the slope.

- If parking on slopes or hillsides always lower the Dingo arms and attachment to the ground and chock the wheels.

- If machine becomes unstable, jump clear. Never try to stabilise the machine by putting your foot on the ground.

## Children

- Be wary of the presence of children when operating a Dingo. Children are often attracted to the Dingo and the work activity.

- Keep children out of the work site and under the watchful care of a responsible adult.

- Be alert and turn the machine off if children enter the area.

- Never carry children (or anyone) on the Dingo or any of its attachments.

- Do not allow children to play on the Dingo or within the Dingo work site (aside from the danger of working machinery there may be holes into which a child could fall or various other dangers).

- Do not allow children to use the machine.

- Before reversing look behind and down for small children. Be aware of blind corners, shrubs, trees, or ends of fences that may obscure vision.

## Service

- Before performing any service, repairs, maintenance or adjustment, stop the engine and remove the key.

- Never run the machine in an enclosed area.

- Perform all maintenance with the Dingo arms fully lowered. If Dingo arms need to be raised to perform tasks, secure them in the raised position by using cylinder locks or a safety stand. (Contact a Dingo representative if you are unsure)

- Look after the Dingo. Keep nuts and bolts tight.

- Do not tamper with safety devices. Before each use check safety systems properly.



■ Keep the machine free of grass, leaves, or other debris build up. Clean up oil or fuel spillage. Allow the machine to cool before storing.

■ Use extra care when handling petroleum and other fuels. They are flammable and vapours are explosive

- Use only an approved container.
- Never remove the fuel cap or add fuel while the engine is running. Allow engine to cool before refuelling. Do not smoke.
- Never refuel the machine indoors.
- Never store the machine or fuel container inside where there is an open flame, such as near a water heater or furnace.
- Never fill a container while it is inside a vehicle, car boot, utility tray or any surface other than the ground.
- Keep container nozzle in contact with the tank during filling.

■ Stop and inspect equipment if you strike anything or hear any strange noise coming from the machine. If necessary repair machine before starting again.

■ Use only genuine replacement parts to ensure that original standards are maintained.

■ Battery acid is poisonous and can cause burns. Avoid contact with skin, eyes, and clothing. Your face, eyes, and clothing should be protected when working with a battery.

■ Battery gases can explode. Keep cigarettes, sparks and flames away from battery.

■ **WARNING** Hydraulic pressure escaping under pressure can penetrate the skin and cause injury.

Keep hands and body away from pin hole leaks or nozzles that eject high pressure hydraulic fluid. A small leak can be dangerous. To find hydraulic leaks use cardboard or paper.

If fluid is accidentally injected into the skin a doctor familiar with this type of injury must surgically remove it within a few hours.

## Safety and Instruction Decals

It is important to replace any damaged or missing decals.

Part number: 021-000-032)



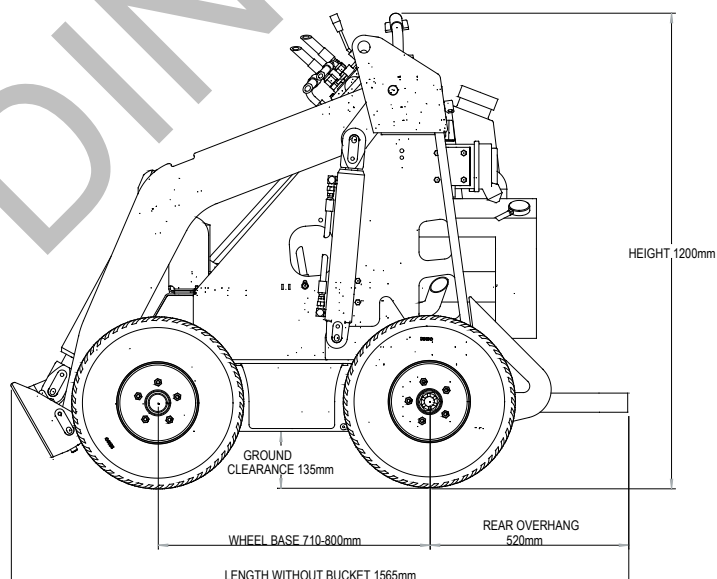
Part Number 021-000-013

# Specifications

General Specifications (without operator and without attachments)  
(Approximate Only)

Overall width	840mm-1040mm
Overall length (without attachment)	1565mm
Overall height	1200mm
Max. operating height (with standard bucket)	2080mm
Operating weight	700-800kg
Turning radius with standard bucket	1300mm
Safe Working load (=50% of tip load)	250 kg
- bucket (& 90kg operator)	
(Lifting capacity up to 500kg with certain attachments)	
Speed	0 - 6 km/hr
Angle of departure	20 degrees
Engine HP	Kohler 22 HP
	Perkins 20 HP
Wheel motor sizes	29 cu in
Wheel base	710-800mm
Drive chain	ASA 60H (Heavy Link 3/4")
Ground clearance	135mm
Tyre size	18 x 8.50 x 8 (4 ply) standard
Hydraulics	2 pump
Pump sizes	Kohler 9 & 3 cc (3600 rpm)
	Perkins 11.2 & 3.15 cc (3100 rpm)
System relief pressure (hydraulic)	3000psi (206 Bar)
Hydraulic reservoir capacity	60 litres
Hydraulic output	43 litres per minute
Filtration	25 micron
Standard bucket capacity	0.11 cu m
Standard bucket dump height	1240 mm
Reach fully raised standard bucket	600mm
4 in 1 bucket capacity	0.11 cu m
4 in 1 bucket dump height	1750mm
Reach fully raised 4 in 1 bucket	600mm
Chip bark bucket capacity	0.18 cu m
Height to hinge pin (std. bucket in highest position)	1680mm

Specifications and design subject to change without notice.





# Operation - Pre Start-Up

## Pre Start-Up (daily)

Read this manual and the engine manual and become familiar with the contents of both.

Always check the following before operation:

- Fuel level - fill if necessary
- Engine oil level (refer to engine manual)
- Remove all refuse from the machine
- Check air filter
- Check bushes
- Tyre pressure (22psi & water filled)
- Drive chain condition and tension
- Check radiator fluid (diesel only)
- Check for oil leaks
- Check for damage & loose components
- Be sure that the work area is free from other people and children
- Clean work area of any debris
- Know and mark the location of any utility lines
- For first 6 days of operation of new machine, and first 6 days of operation after changing wheels, tighten wheel nuts daily.

## Adding Fuel

Labelling on the fuel tank tells whether a machine requires petroleum or diesel fuel. For fuel type and information on suitable additives refer to Engine Manual as supplied. (NB. If labelling becomes lost or damaged order replacements from your Dingo representative) & fit to machine.

**1** Position Dingo on level surface, lower the Dingo arms and turn off the engine (turn ignition key to off). Remove the key.

**2** Clean around the fuel tank cap and remove the cap. Use a funnel to add fuel as specified above to the fuel tank, filling until the fuel reaches 60 - 70 mm below the top of the tank. This space is needed to allow the fuel room to expand. **Do not fill the fuel tank completely full.**

**3** Replace the fuel cap securely. Clean away any fuel that may have spilt.

**DANGER - Petroleum can be extremely amammable and highly explosive.**

To avoid a fire or explosion that may burn yourself, other, or cause property damage:-

- Use a funnel and fill the fuel tank out doors, in an open area, when the engine is cold
- Clean up any petrol spills.
- Do not completely fill the fuel tank. Follow guidelines above.
- Never smoke while handling fuels, and stay away from an open flame or any place that a spark may ignite petroleum fumes.
- Store fuels in an approved container, out of reach from children. Never buy more than a 30 day supply of fuel.

## Checking the Engine Oil

Check the engine oil level using the dip stick. (Refer to your engine manual for details)

## Remove Debris from the Machine

**IMPORTANT:** Overheating will result if the engine is operated with a blocked grass screen, dirty or plugged cooling fins, and/or cooling shrouds removed.

The hydraulic system will keep cooler if the machine is free from debris on the hydraulic tank and fittings.

Park the machine on a flat surface, lower the Dingo arms and turn off the engine.(turn ignition key to off). Remove the key.

Check air filter pre-cleaner for debris. If required, wipe away debris before and during each use.

Debris can build up in the engine area. Clean any debris build-up with a brush or blower before each use.

**IMPORTANT:** It is preferable to blow out dirt than to wash it out. If water is used, keep it away from electrical system.

**IMPORTANT:** Do not high pressure wash. High pressure washing can damage the electrical system.

## Tyres and Traction

**WARNING!** Dingo tyres should be filled with water or solid fill. Failure to do so will result in poor weight distribution, which will drastically reduce the stability and carrying capacity of the machine.

Use of incorrect tyre pressure will also reduce the stability and carrying capacity of the Dingo. The correct tyre pressure is usually between 140 and 155 kpa (20-22psi). Various types of equipment are available for filling tyres with water. Filling equipment can also be purchased from Dingo Mini Diggers.

You should also be aware that the tyres fitted to your machine may not be the most suitable for all work environments and there is a range of traction equipment to suit every application.

This range includes:

- **8" Dingo tyres** [machine width 970mm] Specially designed for Dingo these 18"x8" tyres feature a unique tread pattern for excellent performance in a range of conditions, 6 ply for strength & stability and a compound designed for durability.
- **8" turf tyres** [machine width 1040] general purpose - suitable for grassy areas, dry soil and paved surfaces - minimum ground disturbance.
- **8" lug tyres** [machine width - 1040] tractor type, for building sites, and muddy situations.
- **20 x 8" sand tyre** [machine width - 1100] better flotation & clearance for sandy & loose material conditions.
- **5" forklift type tyres** [machine width - 890mm] narrower tyres, suitable for heavy loads, restricted access, inside buildings, great on all hard surfaces.
- **3" narrow solid tyres** [machine width - 840mm] only for very restricted access - will fit through a standard doorway.
- **Tracks** [machine width - 1200mm] excellent flotation and traction - suitable for mud, sand and slush.

- Solid fill (all of the tyres mentioned above (excluding the 3" solids) can be supplied by Dingo Mini Diggers, filled with a puncture-proof, solid foam).
- For more information on our range of traction products, please speak to your nearest Dingo representative.

## Operating Instructions

Read all the safety instructions and the pre start up section of this manual and the engine manual before operating the Dingo.

**Caution** - Do not operate any of the control levers (including auxiliary lever) unless you are standing with both feet on the platform and firmly holding the grip handles.

**IMPORTANT!** **Ensure the auxiliary hydraulic lever is in the centre position before attempting to start engine.** The most common cause of 'hard to start/engine, will not turn over fast enough, battery does not have enough power' type starting problems is that the auxiliary lever has been left on or knocked into gear and the engine is trying to start under load.

### Control Levers / Control Panel

#### Key Switch

The key switch, used to start the engine, varies on petrol and diesel models. Check engine manufacturer's manual for starting instructions. To shut engine off, rotate key to OFF position (counter clockwise direction).

#### Throttle

Move control forward to increase engine speed and rearward to decrease engine speed.

#### Choke

For instructions regarding use of the choke (petrol models) refer to the engine manufacturers manual.

#### Drive Control Levers

To go forward, slowly push the right and left drive control levers forward.

To go backward, slowly pull the right and left

drive control levers backward.

To go straight, apply equal pressure to both drive control levers.

To turn, decrease pressure on the drive control lever closest to the direction you want to turn.

The farther you move the drive control levers in either direction, the faster the machine will move in that direction.

To slow or stop, move or release the drive control levers into neutral. (If released the control levers will automatically return to neutral).

The Dingo is capable of turning on the spot by applying equal power to each drive lever in opposite directions.

### Attachment Tilt Lever

To tilt/crowd attachment forward, slowly push the tilt lever forward.

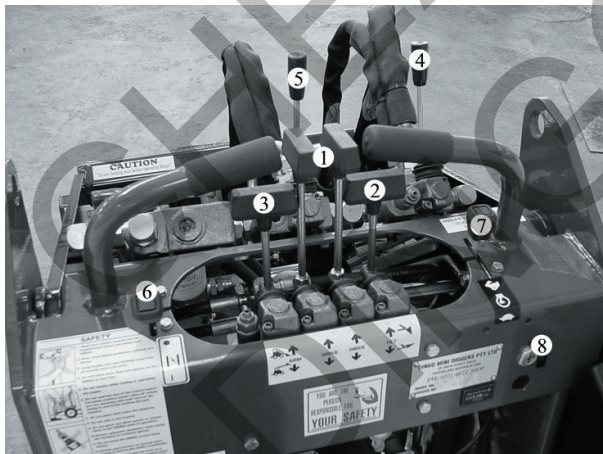
To tilt attachment backward, slowly pull the tilt lever backward.

### Loader Arms Lever

To lower Dingo arms, slowly push arm lever forward.

To raise Dingo arms, slowly pull arms lever backward.

### Control Panel Diagram



- 1 Drive control levers
- 2 Attachment tilt lever
- 3 Loader arms lever
- 4 Auxiliary hydraulic lever
- 5 Pump selector valve
- 6 Kohler engine Dingo's - Choke  
Robin engine Dingo's - Throttle
- 7 Kohler engine Dingo's - Throttle  
Robin engine Dingo's - position empty
- 8 Ignition

### Auxiliary Hydraulic lever

The auxiliary hydraulics lever allows you to alter the direction of rotation of hydraulically driven attachments or stop them completely.

**ATTENTION:** Ensure auxiliary hydraulic lever is in neutral position before starting engine. Aside from starting difficulties the attachment may move during starting.

To operate attachment in forward direction, slowly pull auxiliary lever rearward. To operate attachment in reverse direction, slowly push auxiliary lever forward.

### Pump Selector Lever

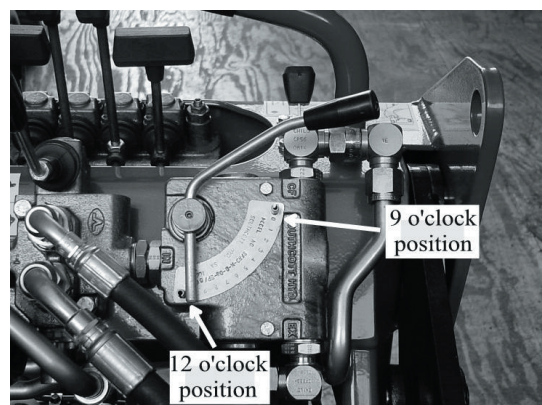
When faster ground speed and lifting speed is required (bucket work) more than attachment speed and power, push the pump selector lever to the forward position (Hare).

When faster attachment speed and power is required (trenching, post hole digging etc) more than ground speed and lifting power, pull the pump selector lever to the rearward position (Turtle).

### Flow Divider Control

In its normal operating position (12 o'clock) no flow division is taking place. Moving the lever towards the nine o'clock position, diverts oil flow to the attachment and less is available to the Dingo wheels and arms. This allows for greater concentration of power where it is needed most.

The flow divider is mainly used for trenching, rotary hoeing and stump grinding where it is important for the attachment to have as much power as possible and ground speed is not important.





## Starting the Engine

Stand on the platform. Move the auxiliary hydraulics lever to neutral. Follow instruction on starting engine as detailed in the engine manufacturer's manual.

## Stopping the Engine

Refer to the relevant engine manual.

**Note:** If the engine has been working hard or is hot, let it idle for a minute before turning the ignition key to OFF. This helps cool the engine before it is stopped. In an emergency, turning the ignition key to OFF will stop the engine.

## Stopping the Dingo

To stop the machine, move the drive control levers to neutral, lower Dingo arms to the ground, and turn the ignition key to OFF to stop the engine. Remember to remove the key from the key switch.

**CAUTION!** If children or bystanders attempt to operate the machine, someone could be injured. To avoid attempted use by children or bystanders while machine is unattended, remove the key from the ignition, even if just for a few minutes.

## Moving a Non Functioning Dingo

The best way to move a non functioning Dingo is by forklift or crane. It is also possible to push or tow a Dingo without the use of the engine. By adjusting the Over Centre Valve it is possible to free up the hydraulic circuit, allowing the wheel motors to turn freely. Please call your nearest Dingo service centre for more information.

## Using Cylinder Locks

**IMPORTANT:** Normal maintenance should be completed with the Dingo arms lowered. If maintenance or repairs requires the Dingo arms raised, use cylinder lock provided with Dingo.

**WARNING!** Dingo arms may lower when in the raised position. Anyone under the Dingo arms could be injured or crushed. To avoid this hazard always install cylinder locks or a safety stand. (Contact a Dingo representative if you are unsure).

# Attachments

## Connecting

**IMPORTANT:** Use only Dingo approved attachments. Attachments can change stability and operating characteristics of the machine. The warranty of the machine may be voided if used with unapproved attachments.

**IMPORTANT:** Before connecting any attachments to the machine, make sure mount plates are free of any dirt and debris.

- 1 Move pump control lever to slow (turtle) position.
- 2 Slowly push the attachment tilt lever forward to tilt the attachment mount plate forward.
- 3 Position mount plate into the upper lip of the attachment's receiver plate.
- 4 Raise the Dingo arms while tilting back the mount plate at the same time.
- 5 **IMPORTANT:** The attachment should be raised enough to clear the ground and the mount plate tilted all the way back.
- 6 Turn the ignition key to OFF to stop the engine.
- 7 Engage the attachment lock pins (the lock pins should go down 15mm as they turn). **Note:** Lock pins are located on the outer edge of the mount plate and should be turned towards the inside to engage.
- 8 **Note:** Proceed to next step if auxiliary hydraulics are required with attachment.
- 9 **IMPORTANT:** Make sure all foreign matter is cleaned from hydraulic connections before making connections.
- 10 With the engine turned off move the auxiliary hydraulics lever to the forward, backward, and back to neutral position to relieve hydraulic pressure at the hydraulic couplers.

**11** Remove protective plugs from the hydraulic couplers on the Dingo. Connect plugs together to prevent contamination during operation.

**12** Slide collar back on hydraulic coupler and connect attachment couplers to machine couplers. There will be two connections to make.

**13** Confirm that connection is secure by pulling on the hoses.

## Disconnecting

**1** Lower attachment to the ground or onto a trailer.

**2** Turn the ignition key OFF to stop the engine.

**3** Move the auxiliary hydraulics lever forward, backward and back to neutral position to relieve hydraulic pressure at the hydraulic couplers.

**4** Slide collar back on the hydraulic coupler and disconnect attachment couplers from machine couplers. (Note: if this is difficult return to step 3 and repeat).

**5 IMPORTANT:** Connect attachment hoses together to prevent contamination during storage.

**6** Install protective covers onto Dingo's hydraulic couplers.

**7** Disengage the attachment lock pins by turning them to the outside.

**8** Start engine, tilt the mount plate forward and back machine away from the attachment.

## Transporting and Securing

**IMPORTANT:** Do not operate or drive Dingo on roadways.

**IMPORTANT:** When transporting Dingo on trailer, always use the following procedure.

1. Never load or unload the Dingo on the trailer unless the trailer is attached to the vehicle.
2. Always climb the ramps with the heavy end of the machine up hill. E.g. With heavy attachments like the trencher or backhoe attached to the Dingo, climb the ramps in

the forward direction. With no attachment on the Dingo, climb the ramps in the reverse direction.

**3.** The bucket, post hole digger and leveller attachment should always be positioned in their designated positions on the trailer. This will help ensure that the weight is distributed correctly on the trailer.

**4.** Ensure the load is positioned so that there is more weight forward of the trailer axle than behind the axle. Too much weight behind the axle may cause the rear of the vehicle to become too light.

**5.** Once in position on the trailer lower the Dingo arms

**6.** Turn the key to Off to stop the engine.

**7.** Secure the machine to the trailer with chains or straps using the tie down points on the Dingo arms.

**8.** When towed by a vehicle not fitted with an electric trailer brake controller, engage the manual breaking system by lifting the manual override stopper on the tow coupling (single axle trailer only).

## Maintenance

It is essential to maintain the engine as detailed in the engine manual. Service recommendations will vary depending on your engine type, refer to your engine manual for this information.

**Any information relating to the engine in the following table is intended as a guide only.**

Refer to the Pre Start Up section for maintenance that should be completed before starting the Dingo (each and every time).

Frequency	Engine Type	Maintenance Required	Ref for Info
Every 25 Hours	All	Check hydraulic oil level and check external leaks	Page 16
		Check bushes & replace if required	Page 15
First 50 Hours	Diesel	Change Engine Oil & Filter	Engine Manual
	All	Check hydraulic pressures. (Available free from your local Branch)	.
Every 50 Hours	All	Check hydraulic oil level and check external leaks	Page 16
		Check Hydraulic hose connections and tighten if required	.
		Check tyre pressure	Page 10
		Replace air filter element if required (1)	Page 15
		Check for fuel leaks	.
		Check battery electrolyte uid level	Engine Manual
		Clean spark plugs (petrol only) Replace if required	.
		Tighten wheel nuts	.
		Test all functions of operation	.
Every 100 Hours	Petrol	Change engine oil & filter	Engine Manual
		Replace fuel filter	Engine Manual
	All	Replace air cleaner element (1)	Page 15
		Check battery electrolyte uid level	Engine Manual
		Check drive chain tension & adjust if necessary	Page 17
	Diesel	Check fan belt tension, Clean radiator fins & radiator hoses	.
		Change Engine Oil & Filter	Engine Manual
		Replace fuel filter	Engine Manual
Every 500 Hours	All	Change Hydraulic Oil & clean hydraulic oil tank	Page 16
		Change Hydraulic Filter	Page 16
		Remove sediment in fuel tank	Page 16
	Petrol	Have UTE bendix starter drive serviced (2)	Engine Manual
		Have solenoid shift starter disassembled and cleaned (2)	
	Robin	Clean Carburettor	Engine Manual
		Clean cylinder head	
		Clean engine base (oil pan)	
		Check and adjust valve seats	
		Adjust valve clearance	
		Replace spark plugs	



## Dingo Service Pack

It is recommended that some parts be kept on hand for maintenance purposes at all times. The following pack is excellent value, being considerably cheaper than purchasing the parts individually. Please phone your Dingo representative for current pricing of this kit. It may be necessary to add to this kit depending on which attachments you have.

- 10 Bushes/Bearings & Pins to suit
- 6 Bearing Seals (if required)
- 1 Bush/Bearing Drift (used for changing bushes/bearings)
- 1 Hydraulic Return Filter
- 1 Fuel Filter
- 1 Engine Oil Filter to suit specific motor
- 1 Air Cleaner Element Inner
- 1 Air Cleaner Element Outer
- 1 Drive chain & Joining Link

### Air Filter

#### IMPORTANT:

The air filter is of extreme importance. It ensures the air entering the engine is clean. Dirty air will equate to greatly reduced engine life. The time interval between changes of air filter will depend on the operating conditions. Change of air filter is recommended as opposed to cleaning of the air filter.

Although the service schedule recommends 50 hour intervals between changes of the air filter, **if dusty conditions prevail, then 8 hours could be too long.**

**Never blow out your air filter with compressed air.**

If the filter or filter housing is damaged, stop the engine immediately and replace the damaged components. Failure to stop work when the air filter or housing is damaged could result in **permanent damage.**

### Bushes/Bearings & Pins

Your Dingo has 9 bushes/bearings and 10 pins. These are located on either end of the hydraulic cylinders and on all pivot points of the lift arms.

**These bushes/bearings are wear parts and require regular inspection. (Once a week)**

To check the condition of the bushes/bearings:

- 1** Remove attachment from the front of the Dingo
- 2** Raise the arms until the mount plate is at waist height
- 3** Grab the mount plate and wriggle back and forth to try and identify any movement in any of the joints in the mount plate
- 4** Grab the arms and wriggle up and down to detect any movements in joints in the arms.

It is essential that bushes/bearings be replaced on the first sign of wear, or costly damage will occur. Ensure that spare bushes/bearings are on hand at all times.

#### To replace bushes:

- 1** Undo bolt in tag of pin.
- 2** Slide the pin out of the joint. If any damage to chrome coating on pin, replace pin.
- 3** Use bush drift (part no - 141-000-000) to punch bush from joint.
- 4** Use bush drift to insert new bush. Careful not to damage the inner coating of bush.
- 5** Use emery paper or similar to clean joint surfaces (allows pin to slide in easier)
- 6** Slide pin back into place. Avoid using hammer to force pin back into position. This can damage the bush.
- 7** Replace locking bolt.

### Engine Oil

Refer to the engine manual for required frequencies of oil changes, oil types, crankcase capacity and viscosity.

#### Changing / Draining Oil

- 1** Start the engine and let it run for 5 minutes. This warms the oil so it drains better.
- 2** Park the Dingo so the drain side is slightly lower to ensure that the oil drains completely.
- 3** Then lower the Dingo arms, chock the wheels and turn the ignition key to OFF to stop the engine. Remove the key.
- 4** Place the end of the hose in a pan.
- 5** Remove bung by turning counter clockwise while holding the nut. Allow to drain.
- 6** When oil has drained completely, replace the bung.

**Note:** Dispose of used oil in accordance with local authority regulations.

7 Slowly pour approximately 80% of the specified amount of oil (refer to engine manual) into the filler tube. Now check the oil level. Slowly add additional oil to bring to FULL mark on dipstick.

## Changing Oil Filter

Refer to engine manual.

## Spark Plugs

Removing, checking and cleaning spark plugs (petrol only) - refer to engine manual.

## Fuel Filter

Replace the fuel filter after every 100 hours or yearly, whichever occurs first.

- 1 Never reinstall a dirty filter.
- 2 Lower the Dingo arms and turn the ignition key to OFF to stop the engine. Remove the key.
- 3 Clamp fuel line close to the tank to block fuel flow or on diesel turn the tap on the filter until it is in the horizontal position.
- 4 Squeeze the ends of the hose clamps together and slide them away from the filter.
- 5 Place a drain pan under the fuel line to catch any spillage, then remove the filter from the fuel lines.
- 6 Install a new filter and move the hose clamps close to the filter.
- 7 Remove clamp blocking fuel flow.

## Draining the Fuel Tank

**DANGER! Petroleum can be extremely flammable and highly explosive.** To avoid a fire or explosion that may burn yourself, others, or cause property damage:-

- Drain petrol from the fuel tank when the engine is cold. Do this outdoors in an open area.
- Wipe up any petroleum that spills.
- Never drain petroleum near an open flame or where a spark may ignite petroleum fumes.
- Never smoke while handling fuel.

- 1 Park the Dingo on a level surface, to ensure fuel tank drains completely.
- 2 Lower the Dingo arms and turn the ignition key to OFF to stop the engine. Remove the key.
- 3 Loosen the hose clamp at the fuel filter and slide it up the fuel line away from the fuel filter.
- 4 Pull the fuel line off the fuel filter, open the fuel valve, and allow fuel to drain into a fuel can or drain pan.
- 5 Remove tank, drain completely and flush by tipping tank upside down.
- 6 Reverse procedure to replace clean tank.

**Note:** Now is the best time to install a new fuel filter because the fuel tank is empty.

- 7 Install the fuel line onto the fuel filter.
- 8 Slide the hose clamp close to the fuel filter to secure the fuel line.

## Hydraulic System

### Replacing the Hydraulic Filter

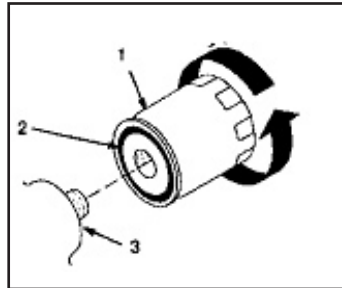
Change the hydraulic filter after every 500 operating hours.

**IMPORTANT: Do not substitute with automotive oil filter or severe hydraulic damage may result.**

- 1 Position the Dingo on a level surface, lower the arms and turn the ignition key to OFF to stop the engine. Remove the key.
- 2 Remove the old filter and wipe the filter adapter gasket surface clean.
- 3 Apply a thin coat of hydraulic fluid to the rubber gasket on the replacement filter.
- 4 Install replacement hydraulic filter. Tighten clockwise until the rubber gasket contacts the filter adapter, then tighten the filter an additional 1/2 turn.
- 5 Clean up any spilled fluid.
- 6 Start engine and let run for about 2 minutes to purge air from the system. Stop the engine and check for leaks.

**7** Check fluid level in hydraulic tank and add oil to raise level to 75mm below the top of the tank.  
**DO NOT OVER FILL.**

- 1. Hydraulic Filter
- 2. Gasket
- 3. Adapter



### Changing the Hydraulic Fluid

Change the hydraulic fluid after every 500 operating hours.

**IMPORTANT:** Do not substitute with automotive oil or severe hydraulic damage may result.

- 1** Position the Dingo on a level surface, lower the arms and turn the ignition key to OFF to stop the engine. Remove the key.
- 2** Place large drain pan under the machine that can hold at least 70 litres.
- 3** Remove the drain plug from the bottom of the hydraulic tank and allow the fluid to completely drain out.
- 4** Remove the tank top and wipe out the inside of the tank and wash out with petrol. If anything unusual is found, consult your Dingo service centre or a hydraulic expert. The tank needs to be spotlessly clean to preserve the hydraulic system.
- 5** Install the drain plug.
- 6** Fill the hydraulic tank with approximately 57 litres of **HVI 68** hydraulic oil.

**Note:** Dispose of used oil in accordance with local authority regulations. Only use **HVI 68** oil. Use of other oil grades can cause loss of hydraulic power, or damage to machine.

### Check Hydraulic Lines

After every 100 operating hours, check hydraulic lines and hoses for leaks, loose fittings, kinked lines, loose mounting supports, wear, weather

and chemical deterioration. Replace all moving hydraulic hoses every 1500 or two years, whichever comes first. Make necessary repairs before operating.

**WARNING!** Hydraulic oil escaping under pressure can penetrate the skin and cause injury.

Keep hands and body away from pin hole leaks or nozzles that eject high pressure hydraulic fluid. A small leak can be dangerous. To find hydraulic leaks use cardboard or paper.

If fluid is accidentally injected into the skin a doctor familiar with this type of injury must surgically remove it within a few hours.

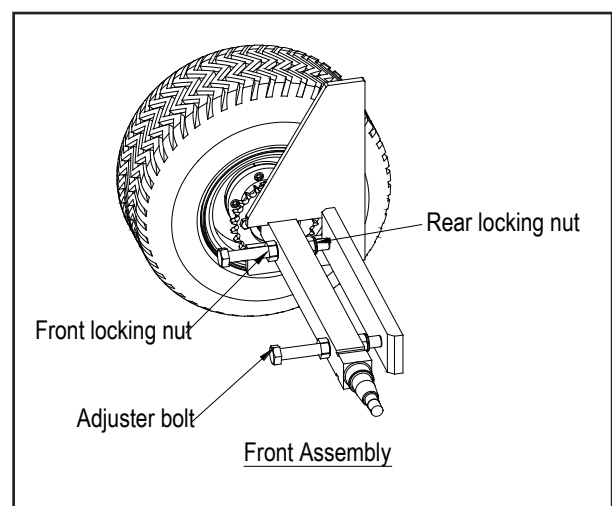
### Adjusting Drive Chains

When properly adjusted, drive chains should have approximately 50 - 75mm of slack. On newer models this can be checked by using the Tension Gauge on the Chain Guard. The chain tension adjustment bolts are on the front axle.

To check the chain tension:

- 1** Remove the chain guard (Unless chain guards have Tension Gauge cut into them)
- 2** Tilt the bucket so that the front wheels lift off the ground
- 3** In that position, check the chain by pressing down on the top chain. There should be 50 - 75mm between the top of the chain and the bottom of the mudguard. If fitted with the Tension Gauge in the chain Guard, pull down on the chain. The bottom of the chain should sit between the two notches in the slot.

**Chains should be run dry** for maximum chain life - do not use oil or chain lubricant.



If adjustment is needed:

- 1 Place a 1 1/16" spanner on the lock nut behind the axle.
- 2 Use a 1 1/8" spanner to loosen the front lock nut.
- 3 Use same spanner on the end of the adjuster bolt to adjust the axle forward or backward until the correct chain tension is reached.

**Note:** Normally only small adjustments are required to correct the tension.

- 4 To set the adjustment, place the 1 1/16" spanner on the rear lock nut while tightening the front lock nut with your 1 1/8" spanner.
- 5 Repeat this process on the opposite end of the axle to adjust the other drive chain.

**IMPORTANT:** Always tension both chains equally to maintain front end alignment. To check, measure the distance between the axle and the front of the chassis on both ends of the axle.

**IMPORTANT:** In some sandy conditions, the sand can build up on the sprockets as little shells. This, in effect, enlarges the size of the sprocket and the chain tightens. Under these conditions run the chains considerably looser.

## Battery

Always keep the battery clean and fully charged. Use a paper towel to clean the battery case. If the battery terminals are corroded, clean them with a solution of 4 parts water and 1 part baking soda. Apply a light coating of grease to the battery terminals to reduce corrosion.

**Voltage: 12v, 380 Cold Cranking Amps.**

If battery becomes flat or machine is not used for a long period, charge the battery using an external battery charger. Disconnect battery terminals before charging the battery. Do not rely on the engine's charging system to recharge a battery. It is only meant to maintain charge in a good battery.

## Cleaning and Long Term Storage

1 Lower the Dingo arms and turn the ignition key to OFF to stop the engine. Remove the key.

2 Remove dirt and grime from the external parts of the entire machine, especially the engine. Clean dirt and chaff from the outside of the engine's cylinder head fins and blower housing.

**3 IMPORTANT:** You can wash the Dingo with mild detergent and water. Do not pressure wash the machine. Avoid excess use of water, especially near the control panel, hydraulic pumps and motors.

4 Service the air cleaner; refer to section on Air Cleaner.

5 Change the crankcase oil; refer to engine manual.

6 Petrol machines only; Remove the spark plugs and check their condition; refer to section on Spark Plugs.

7 With spark plugs removed from the engine, pour two tablespoons of engine oil into each spark plug hole.

8 Now use the starter to crank the engine and distribute the oil inside the cylinder.

9 Install the spark plugs. Do not install the ignition wire on the spark plugs.

10 Check the tyre pressure; refer to section on Tyre Pressures.

11 Charge battery; refer to Batteries section.

12 For long-term storage (more than 90 days) add stabiliser/conditioner additive to fuel tank.

13 Run engine to distribute conditioned fuel through the fuel system (5 minutes).

14 Stop engine, allow to cool and drain the fuel tank; refer to section on Fuel Tank.

15 Restart engine and run it until it stops. Repeat, on "CHOKE" until engine will not restart.

16 Dispose of fuel properly. Recycle according to local codes.

**Note:** Do not store stabiliser/conditioned petrol over 90 days.

17 Check and tighten all bolts, nuts screws. Repair or replace any part that is damaged or defective.

18 Store the machine in a clean, dry garage or storage area. Remove the key from the ignition switch and keep keys in a memorable place.

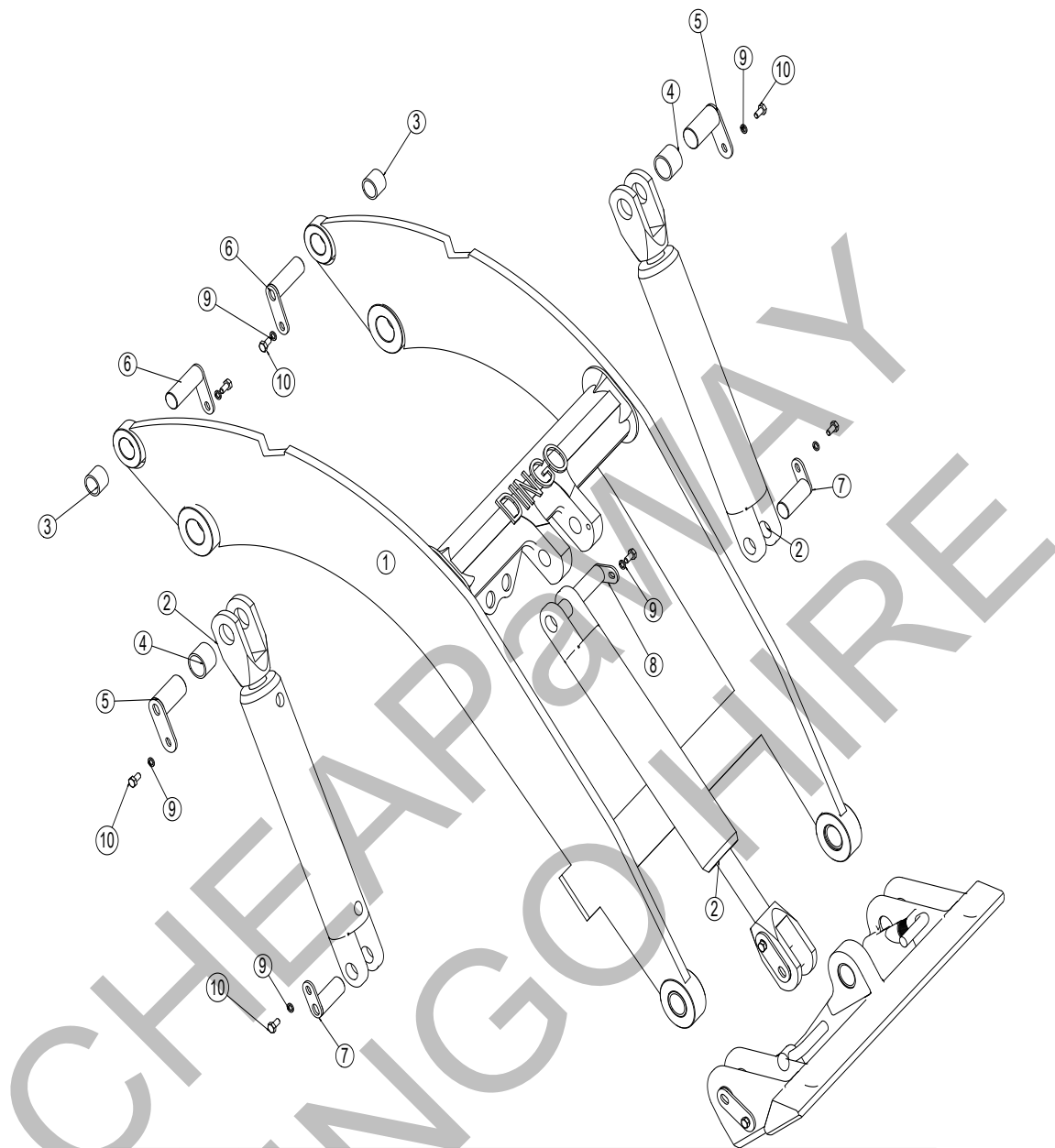
Cover the machine to protect it and keep it clean.

# Troubleshooting

Problem	Possible Causes	Corrective Action
Starter does not crank	1. Battery is dead	1. Charge battery
	2. Electrical connections are corroded or loose	2. Check electrical connections for good contact
	3. Relay switch is defective	3. Contact authorised service dealer
Engine will not start, hard to start or fails to keep running	1. Auxiliary hydraulics lever is not in neutral position	1. Move the lever to neutral position
	2. Fuel tank is empty	2. Fill fuel tank with appropriate fuel
	3. Choke is not on (petrol models)	3. Move choke to ON
	4. Spark plug wires are loose or disconnected. (petrol models)	4. Install wire on spark plug
	5. Air cleaner is dirty	5. Clean or replace air cleaner element
	6. Spark plugs are pitted, fouled, or gap is incorrect (petrol Models)	6. Install new, correctly gapped spark plugs
	7. Dirt in fuel filter	7. Replace fuel filter
	8. Dirt, water or stale fuel in the fuel tank	8. Drain fuel tank and filter and replace fuel
	9. Dirt, water or stale fuel in the fuel system	9. Contact authorised dealer
Engine loses power	1. Engine load is excessive	1. Reduce ground speed
	2. Air cleaner is dirty	2. Clean or replace air cleaner element
	3. Oil level in crankcase is low	3. Add oil to crankcase
	4. Cooling fins and air passages under engine blower housing are blocked	4. Remove obstruction from cooling fins and air passages
	5. Spark plugs are pitted, fouled, or gap is incorrect (petrol Models)	5. Install new, correctly gapped spark plugs
	6. Dirt in fuel filter	6. Replace fuel filter
	7. Dirt, water or stale fuel in the fuel tank	7. Drain fuel tank and filter and replace fuel
	8. Dirt, water or stale fuel in the fuel system	8. Contact authorised dealer
Engine overheats	1. Engine load is excessive	1. Reduce ground speed
	2. Oil level in crankcase is low	2. Add oil to crankcase
	3. Cooling fins and air passages under engine blower housing are blocked	3. Remove obstruction from cooling fins and air passages
Abnormal vibration	1. Engine mounting bolts are loose	1. Tighten engine mounting bolts
	2. Engine mounts are broken	2. Replace engine mounts
Machine does not drive	1. Flow divider valve is in 9 O'clock position	1. Move the lever to 12 o'clock position
	2. Hydraulic fluid level low	2. Add hydraulic fluid to reservoir
	3. Traction pump drive coupler is loose or broken	3. Contact authorised service dealer
	4. Pump and/or wheel motor is defective or damaged	4. Contact authorised service dealer
	5. Control valve is defective or damaged	5. Contact authorised service dealer
	6. Relief valve is defective or damaged	6. Contact authorised service dealer



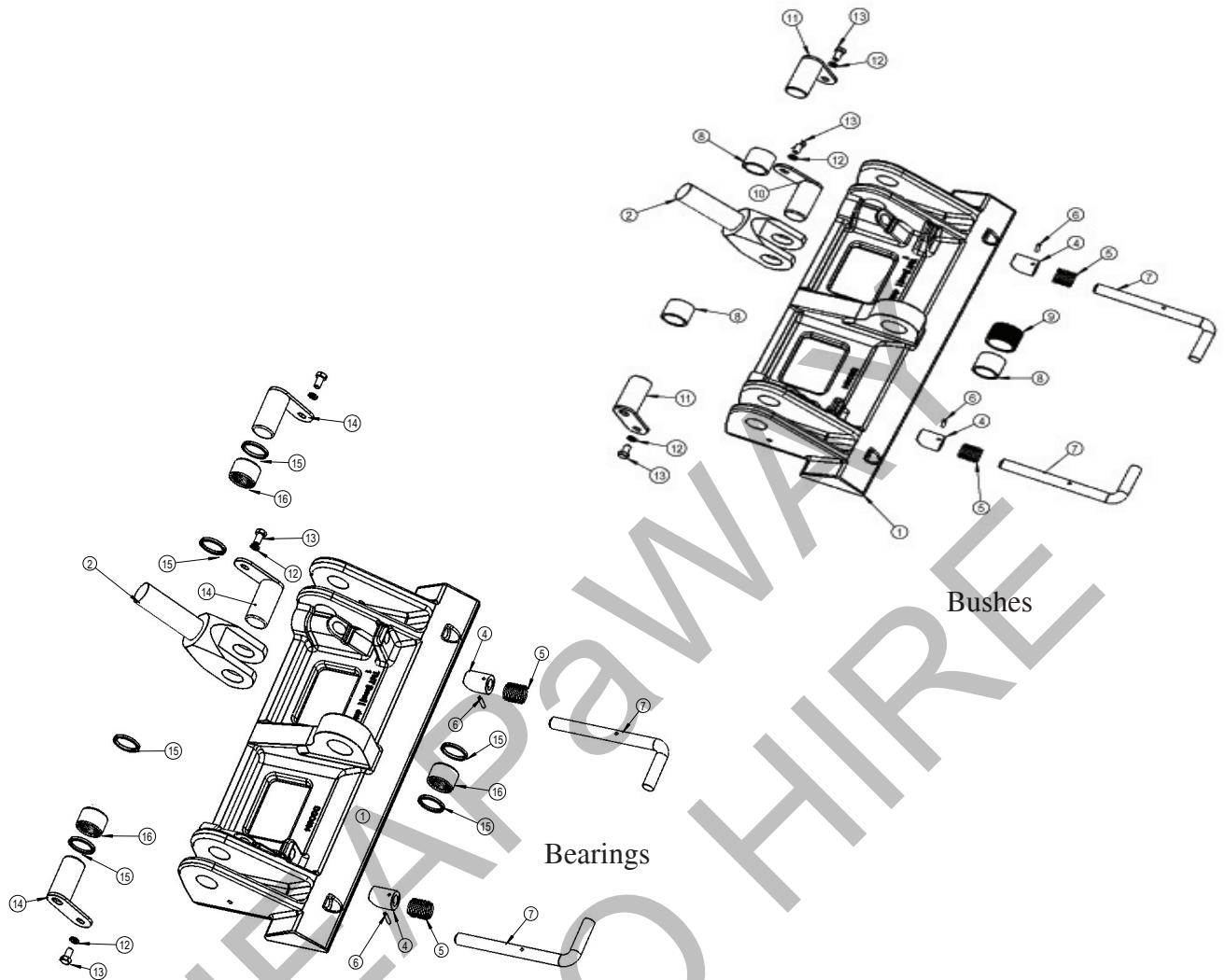
# Arm Assembly & Part List



Item	Qty	Part Number	Description
1	1	K93213	Lift Arms
2	3	321-000-005	2 1/2" x 8" Lift Ram 1 1/4" Top Clevis
3	2	043-000-056	1 1/4"OD 1" ID Duralon Bush
4	2	043-000-057	1 1/2"OD 1 1/4" ID Duralon Bush
5	2	K94105	Clevis Pin 1 1/4" x 63mm 50mm Tag
6	2	D95036	Clevis Pin 1" x 75mm 50mm Tag
7	2	D95034	Clevis Pin 1" x 64mm 30mm Tag
8	1	K93006	Clevis Pin 1" x 115mm 30mm Tag
9	7	132-221-000	5/16" Spring Washer
10	7	111-311-016	Hex Bolt M8x16

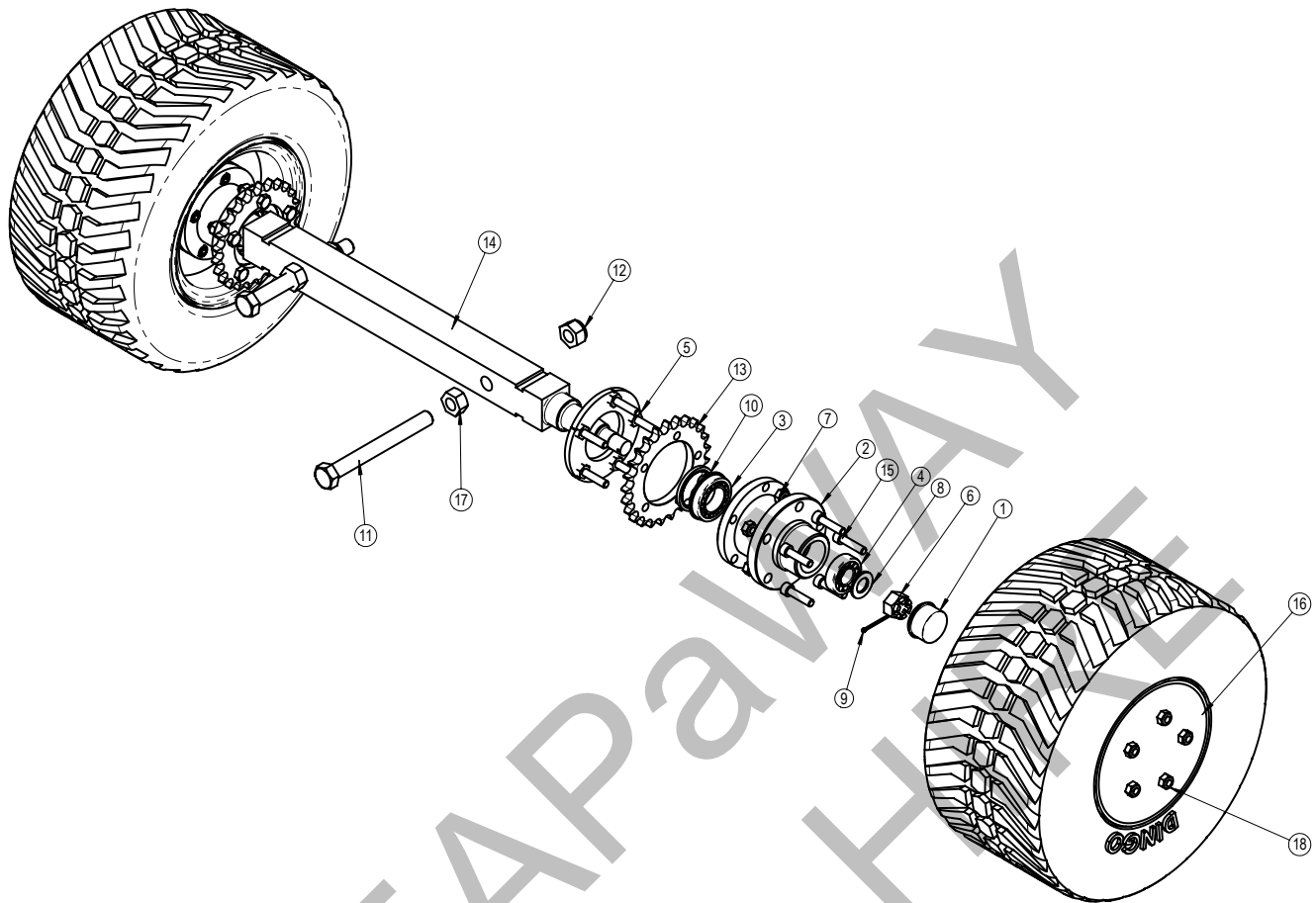


# Mount Plate Assembly & Part List



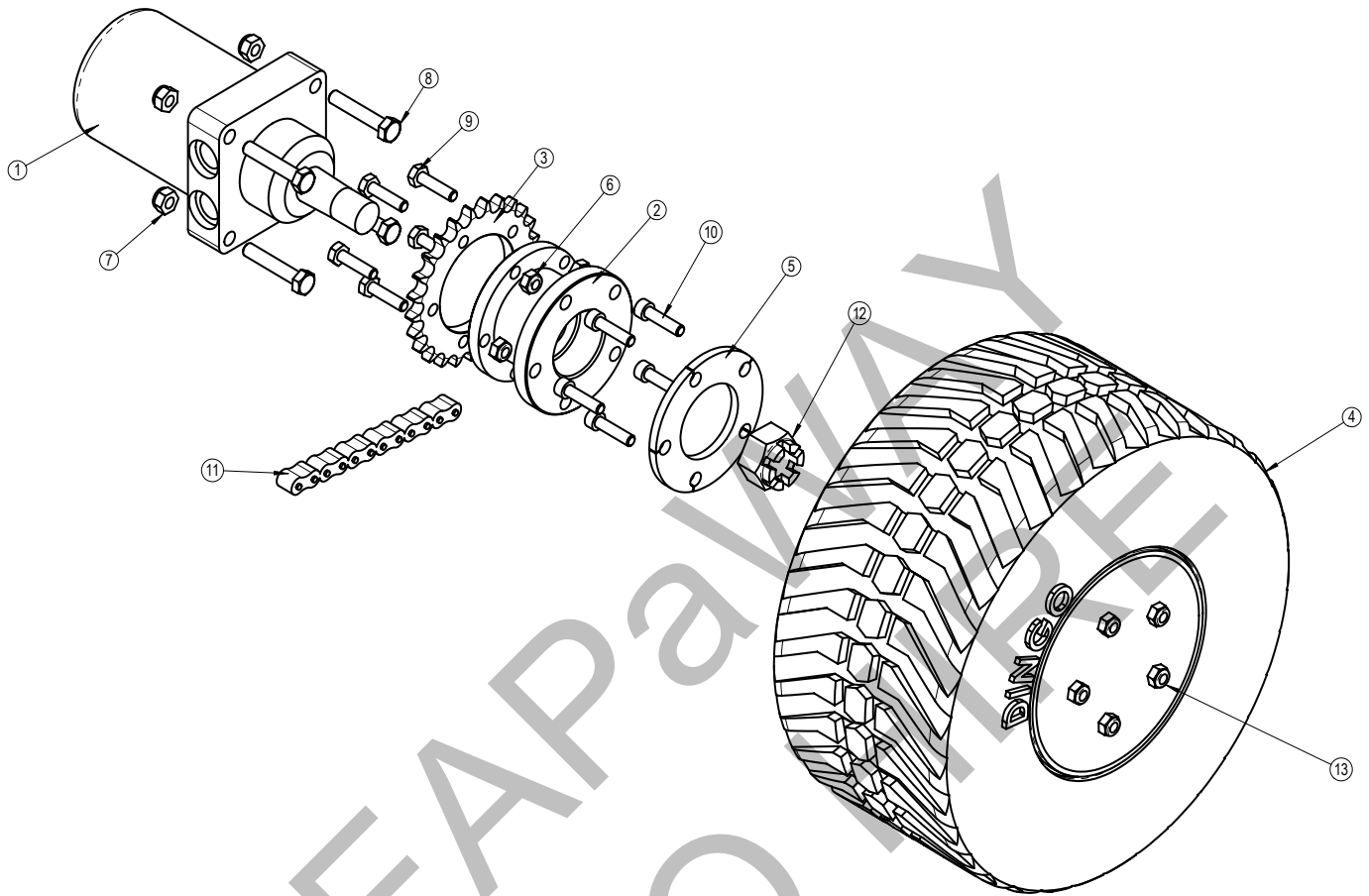
Item	Qty	Part Number	Description
1	1	K94214	Mount Plate For Bushes inc Q/R Pins
1	1	K94212	Mount Plate For Bearings inc Q/R Pins
2	1	321-000-005	2 1/2" x 8" Lift Ram 1 1/4" Top Clevis
4	2	043-000-020	Bevelled Bush
5	2	043-000-031	Locking Pin Spring
6	2	100-000-025	ROLL PIN 5/32" X 1" B1114
7	2	D95211	Locking Pin
8	3	043-000-057	1 1/2"OD 1 1/4" ID Duralon Bush
9	1	K94213	Steel Bush 1.5" ID1.75"OD 32mm K94214 Mount Plate Only
10	1	K94105	Clevis Pin 1 1/4" x 63mm 50mm Tag Chrome
11	2	K95105	Clevis Pin 1 1/4" x 63mm 50mm Tag Chrome
12	3	132-221-000	5/16" / 8mm Spring Washer
13	3	111-311-016	Hex Bolt M8x16
14	3	K94105	Clevis Pin 1 1/4" x 63mm 50mm Tag PGIH
15	6	043-300-054	Seal For 1 1/4" Needle Bearing L15X
16	3	043-000-053	1 1/4" Needle Bearing

# Front Axle Assembly & Part List



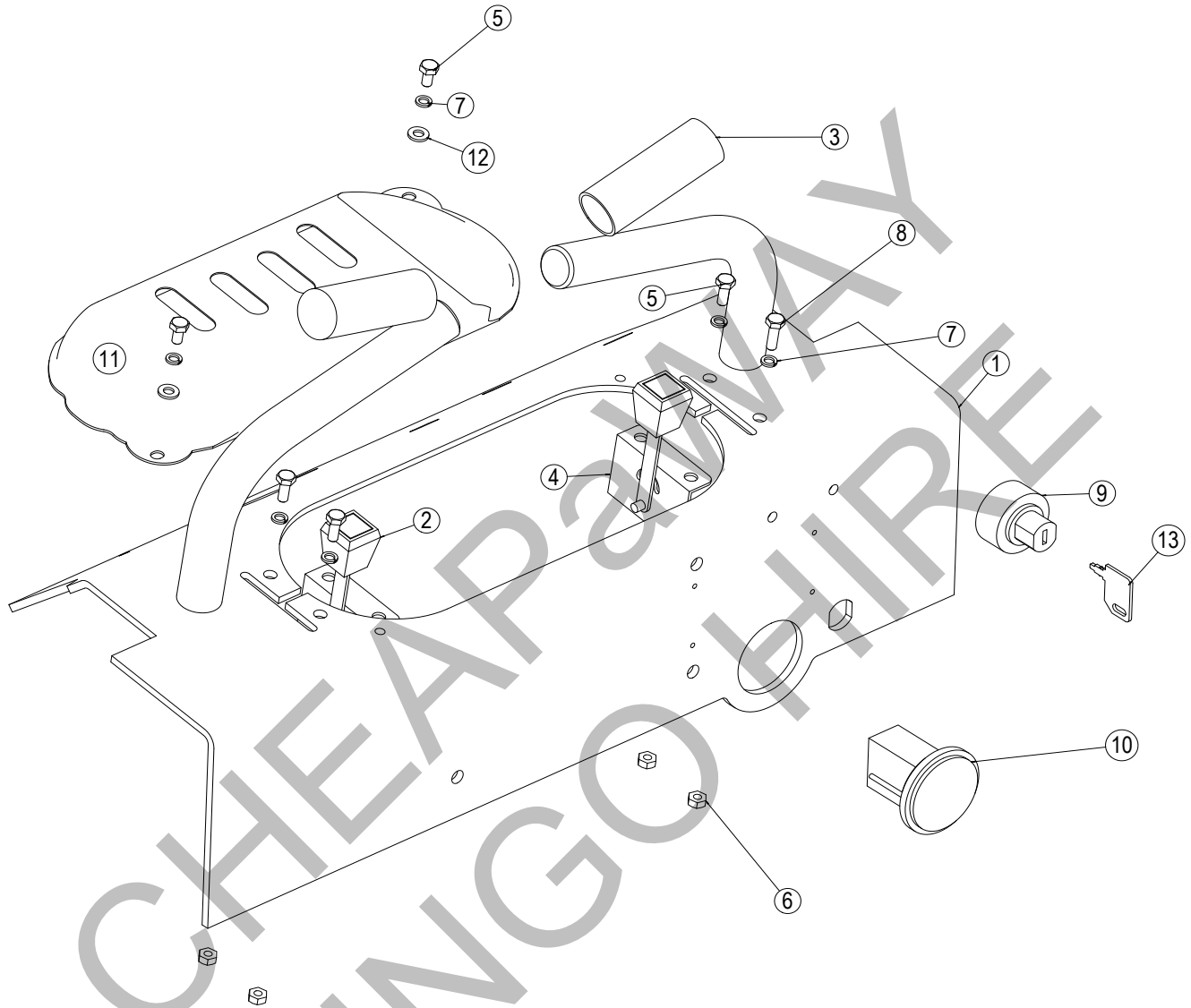
Item	Qty	Part Number	Description
		610-000-002	Axle Assembly With Hubs & Adjusting Bolts
1	2	610-000-008	Dust Cap
2	2	610-000-012	Front Hub With Studs
		610-000-014	Front Hub Complete With Sprockets & Bolts
3	2	610-000-004	Inner Bearing
4	2	610-000-005	Outer Bearing
5	10	112-421-024	7/16" UNF x 1 1/2" Hex Bolt Black
6	2	120-282-001	3/4" UNF Slotted Nut
7	10	122-241-000	7/16" UNF Nyloc Nut Zinc
8	2	131-281-000	3/4" UNC Flat Washer Zinc
9	2	100-000-008	Cotter Pin Ø3.2 x 40
10	2	610-000-010	Sealing-Ring-Single-Lip SD-50*62*5
11	2	610-000-003	Front Axel Adjusting Bolt With Nut
12	2	122-381-000	3/4" UNC Nyloc Nut Zinc
13	2	615-000-001	Drive Sprocket
14	1	610-000-001	Front Axle Bare With Washers And Nuts
15	10	610-000-021	Wheel Stud 7/16" UNF x 1 1/2"
15	10	610-000-030	Wheel Stud 7/16" UNF x 1 7/8" (2003 Onwards)
16	2	611-000-010	Wheel & Tyre Assembly (Trelleborg Tyre)
17	2	121-382-000	3/4" UNC Hex Nut Black
18	2	610-000-027	Wheel Nut 7/16" UNF

# Rear Wheel Assembly & Part List



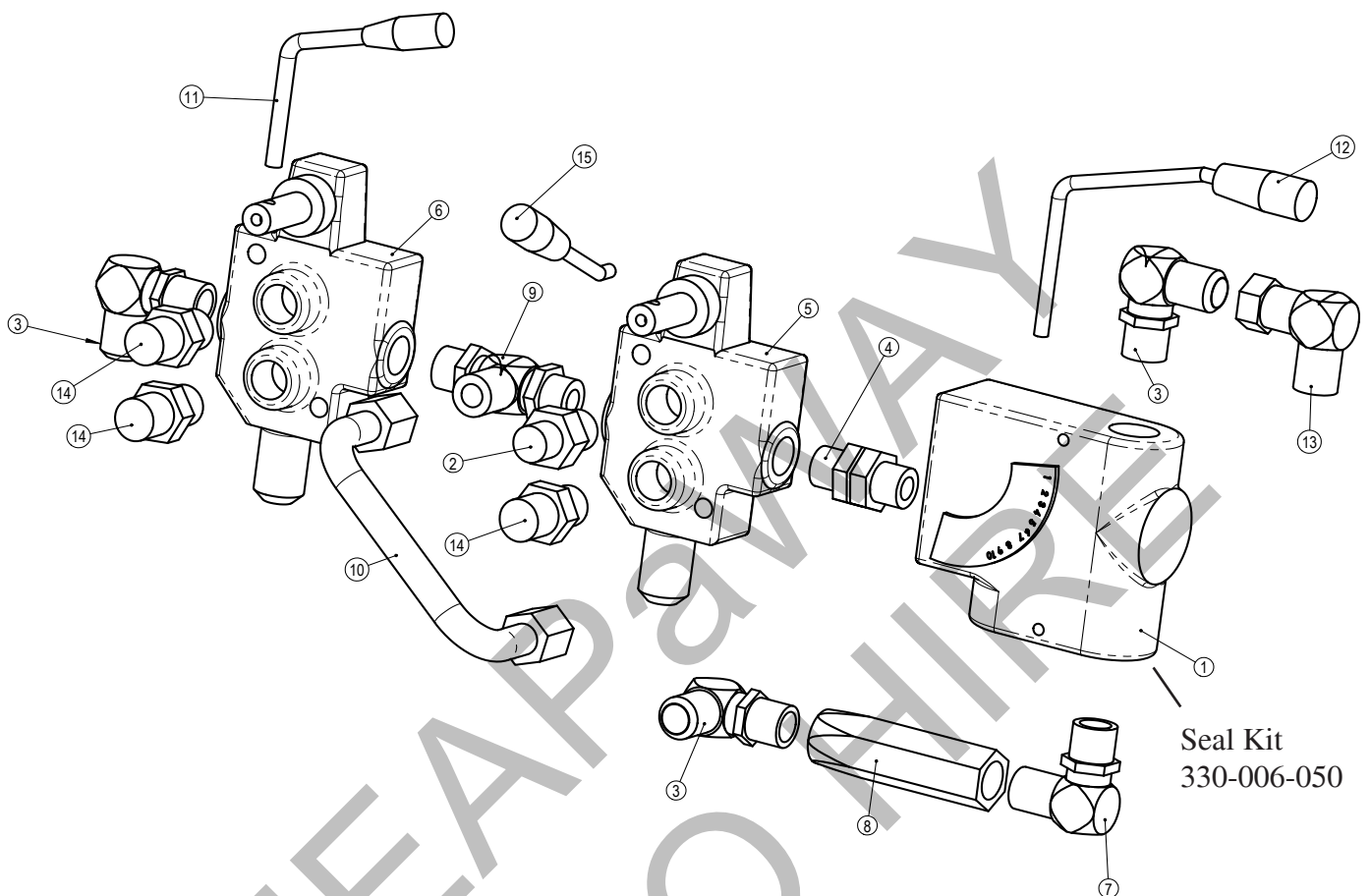
Item	Qty	Part Number	Description
1	1	330-001-004	Wheel Motor 1 1/4" Drive Shaft
1	1	330-001-006	Wheel Motor 1 3/8" Drive Shaft
2	1	610-000-011	Rear Hub (1 1/4" Drive Shaft) With Studs
		610-000-013	Rear Hub (1 1/4" Drive Shaft) With Sprockets
2	1	610-000-032	Rear Hub (1 3/8" Drive Shaft) With Studs
		610-000-029	Rear Hub (1 3/8" Drive Shaft) With Sprockets
3	1	615-000-001	Drive Sprocket
4	1	611-000-010	Wheel & Tyre Assembly (Trelleborg Tyre)
5	1	D95420	Tyre Spacer (20" Sand Tyre Only)
6	10	122-241-000	7/16" UNF Nyloc Nut Zinc
7	4	122-351-000	1/2" UNC Nyloc Nut Zinc
8	4	113-521-040	1/2"UNC x 2 1/2" Hex Bolt H/T
9	5	112-421-024	7/16" UNF x 1 1/2 Hex Bolt Black
10	5	610-000-021	Wheel Stud 7/16" UNF x 1 1/2"
10	5	610-000-030	Wheel Stud 7/16" UNF x 1 7/8" (2003 Onwards)
11	1	614-000-001	Chain 60H 102 Links Including Connector
12	1	330-001-002	1 1/4" UNEF Castle Nut To Suit Taper Shaft MB/ME Wheel Motor
12	1	330-001-007	1 3/8" Nyloc nut For Tapered Shaft
13	5	610-000-027	Wheel Nut 7/16" UNF

# Dash Assembly & Part List



Item	Qty	Part Number	Description
2	1	511-000-012	Throttle / Choke Lever Assembly
3	2	043-000-043	Handle Grip Black
4	1	511-000-012	Throttle / Choke Lever Assembly
5	5	111-211-016	M6 X 16MM Hex Bolt Zinc H/T
6	4	121-121-000	M6 Hex Nut Zinc
7	6	132-211-000	1/4" Spring Washer Zinc
8	1	111-211-020	M6 X 20MM Hex Bolt Zinc H/T
9	1	043-000-044	Ignition Switch Petrol (K9-3/K9-4)
10	1	410-000-048	Hour Meter Round (K9-3/K9-4)
11	1	K93030	K93 Dash Assembly Cover
12	2	131-211-000	Washer 6MM Flat 17MM OD ZP
13	1	043-000-047	Ignition Switch Key Petrol (K9-3/K9-4)

# Front Hydraulic Bank Setup



Item	Qty	Part Number	Description
1	1	330-003-013	FLOW REGULATOR 950/K93 60L SFR308BP60
2	1	316-476-501	NIPPLE CR20812 1/2BSPP X 3/4" JIC ENC-O-RING
3	3	315-477-500	ELBOW CP560814 90 M/M 1/2BSPP X 7/8JIC
4	1	316-474-700	NIPPLE ZCP10808 1/2 BSPP M/M ADJ
5	1	330-003-035	VALVE NO-RELIEF PUMP SELECTOR SD4 DCV MONOBLOCK SD
6	1	330-003-019	VALVE W/RELIEF AUXILIARY SD4 SINGLE 950/K93 SD4/1
7	1	315-474-701	ELBOW CPB530808 90 DEG M/M 1/2BSPP X 1/2 BSPT
8	1	330-003-017	One Way Flow Valve SNDR081BP05
9	1	317-474-775	TEE ZCP62080814 1/2BSPP X 7/8JIC ADJ M
10	1	D95743	PIPE - REMOTE TO SUB BANK -D95743
11	1	K93712	REMOTE BANK HANDLE
12	1	K93713	CONTROL LEVER 950&K93 FLOW DIVIDER 13-064
13	1	315-757-600	ADAPTOR C461414 90 M/F 7/8 X 7/8 JIC
14	3	316-477-501	CR2-0814 NIPPLE 1/2" BSPP X 7/8" JIC ENC O RING
15	1	K93711	PUMP SELECTOR HANDLE

# Hydraulic Assembly & Part List

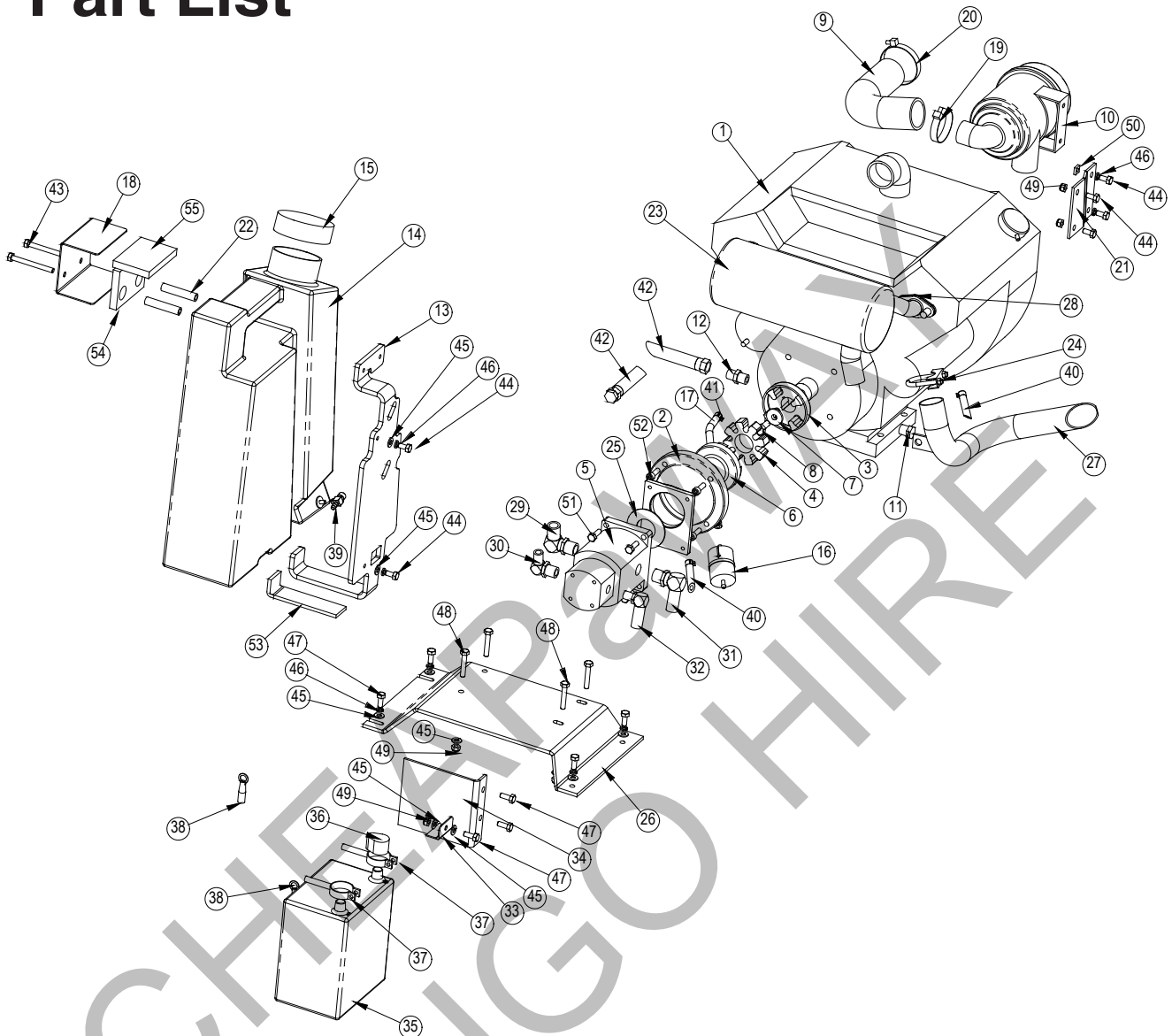


Item	Qty	Part Number	Description
1	3	321-000-005	Lift Cylinder
2	1	330-003-008	Main Control Bank
3	4	315-797-500	C59-1414 Fitting
4	2	330-003-032	Short Handle
5	2	330-003-031	Long Handle
6	5	316-377-500	CR2-0614 Fitting
7	4	316-377-500	CR2-0614 Fitting
8	1	316-377-500	CR2-0614 Fitting



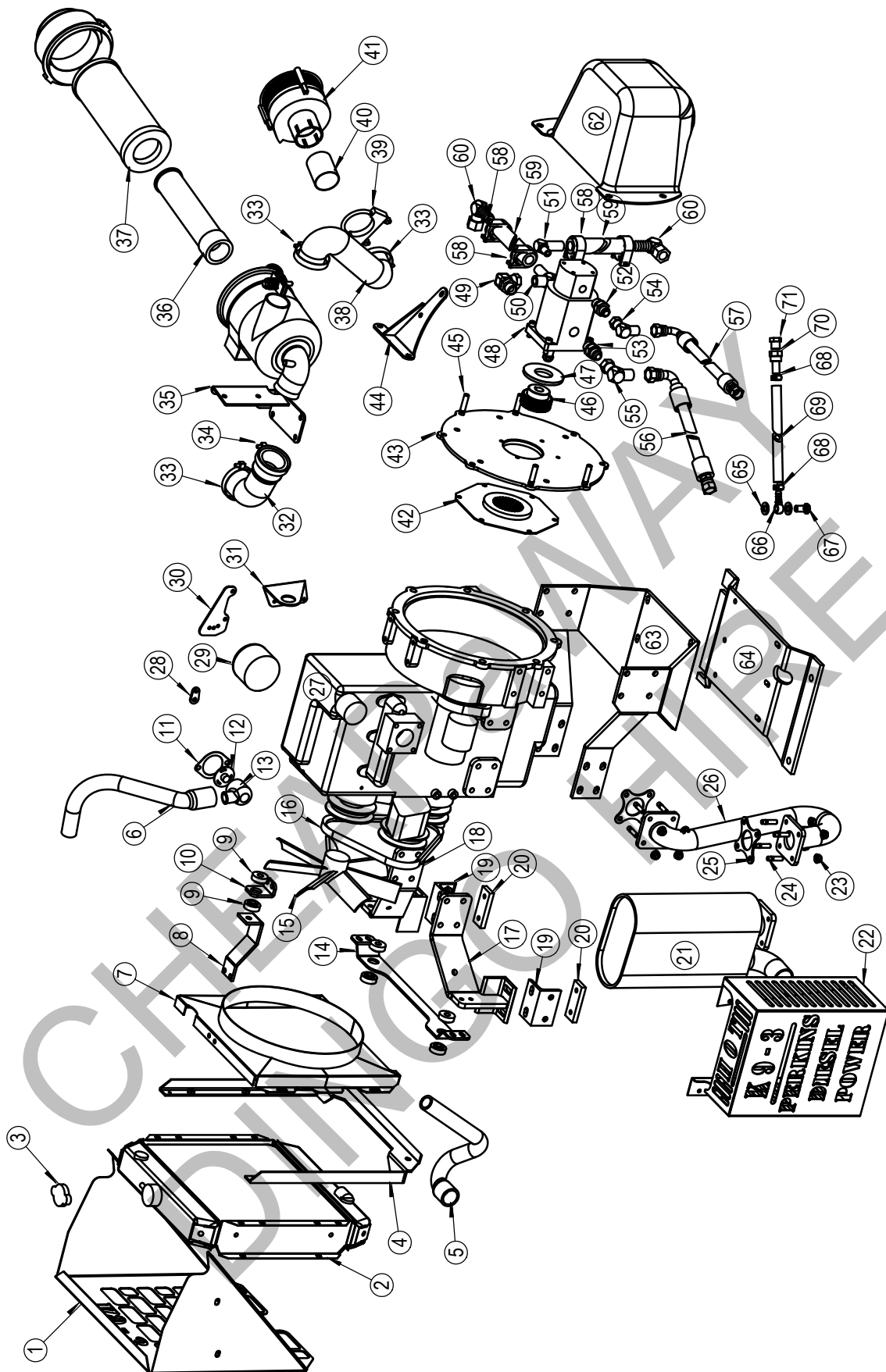
9	1	K93406	Pipe - Control Bank Dump
10	1	D95743	Pipe - Remote Bank To Control Bank 4B
11	1	D95744	Pipe - Wheel Control LH Lower 7AP Petrol
11	1	344-010-009	Pipe - Wheel Control LH Lower 6AD Diesel
12	1	D95745	Pipe - Wheel Control LH Upper 6AP Petrol
12	1	344-010-003	Pipe - Wheel Control LH Upper 7AD Diesel
13	1	D95746	Pipe - Wheel Control RH Lower 9AP Petrol
13	1	344-010-004	Pipe - Wheel Control RH Lower 8AD Diesel
14	1	D95747	Pipe - Wheel Control RH Upper 8AP Petrol
14	1	344-010-005	Pipe - Wheel Control RH Upper 9AD Diesel
15	1	D95748	Pipe - Wheel Motor LH Lower 6BP Petrol
15	1	344-010-006	Pipe - Wheel Motor LH Lower 6BD Diesel
16	1	D95749	Pipe - Wheel Motor LH Upper 7BP Petrol
16	1	344-010-008	Pipe - Wheel Motor LH Upper 7BD Diesel
17	1	D95750	Pipe - Wheel Motor RH Lower 8BP Petrol
17	1	344-010-007	Pipe - Wheel Motor RH Lower 8BD Diesel
18	1	D95751	Pipe - Wheel Motor RH Upper 9BP Petrol
18	1	344-010-010	Pipe - Wheel Motor RH Upper 9BD Diesel
19	1	D95741	Pipe - Remote Bank 5B
20	1	330-003-004	Over Centre Valve
21	8	316-797-500	C3-1414 Fitting
22	1		Front Valve Bank Setup
23	1	D95703	Crowd Hose Short
24	1	D95705	Crowd Hose Long
25	2	D95707	Lift Arm Hose - Short
26	2	D95709	Lift Arm Hose - Long
27	1	D95711	Pressure Hose - Long (Petrol)
27	1	K93723	Pressure Hose - Long (Diesel)
28	1	D95713	Pressure Hose - Short (Petrol)
28	1	K93721	Pressure Hose - Short (Diesel)
29	1	D95715	Remote Hose - Short
30	1	D95717	Remote Hose - Long
31	2	D95718	Suction Hose (Petrol) 300mm
31	2		Suction Hose (Diesel) 650mm
32	2	317-565-555	C64-090909 Fitting
33	6	315-595-500	C59-0909 Fitting
34	1	318-132-000	Female Quick Release
35	1	318-131-000	Male Quick Release
36	1	310-400-002	Male Plug TM12
37	1	310-400-001	Female Cap TF12
38	4	300-000-003	Hose Clamp 29-31mm
39	2	111-211-065	Hex Bolt M6 x 65
40	2	121-121-000	Hex Nut Plain M6
41	4	111-311-060	Hex Bolt M8 x 60
42	9	121-131-000	Hex Nut Plain M8
43	4	131-131-000	Plain Washer M8
44	3	111-311-070	Hex Bolt M8 x 70
45	2	111-311-090	Hex Bolt M8 x 90
46	7	D95722	Spacer 8mm
47	2	D95723	Spacer 5mm

# Petrol Engine Assembly & Part List



Item	Qty	Part Number	Description
1	1	511-000-000	Kohler Engine 23 Hp
		512-000-016	Robin Engine 22 Hp
2	1	330-005-005	Kohler Housing
	1	330-005-003	Robin Housing
3	1	330-005-008	Kohler Coupling (Taper Shaft)
	1	330-005-007	Robin Coupling (Straight Shaft)
4	1	330-005-014	Spider Coupling
5	1	330-002-004	Hydraulic Pumps
6	1	330-005-009	Pump Coupling
7	1	D95352	Kohler Shaft Washer
8	1	113-311-016	Hex Bolt 3/8" x 1" unc ZP
9	1	515-000-001	Kohler Main Air Hose (Up To D014) Small Air Cleaner
	1	515-000-056	Kohler Main Air Hose (D015 Onwards) Large Air Cleaner
	1	515-000-002	Robin Main Air Hose

Item	Qty	Part Number	Description
10	1	515-000-003	Air Filter Assembly (Up to D014)
10	1	515-000-036	Air Filter Assembly ( D015 Onwards)
11	1	312-650-000	Plug Male 3/4" JIC
12	1	316-306-500	Nipple Straight m/m CN2-0612 Kohler
13	1	KIT-K93050	Fuel Tank Bracket Kit
14	1	KIT-K93040	Fuel Tank
15	1	516-000-003	Fuel Tank Cap (Paxton Type) (516-000-035 Suit Aust Tank)
16	1	516-000-012	Fuel Filter
17	1	516-000-013	1/4" Fuel Line Kohler per mtr
	1	516-000-013	1/4" Fuel Line Robin per mtr
18	1	D95502	Top Fuel Tank Bracket
19	1	100-000-063	Hose Clamp 57mm
20	1	100-000-064	Hose Clamp 70mm
21	1	D95350	Air Cleaner Bracket
22	2	D95505	Fuel Tank Top Bracket Spacer
23	1	511-000-027	Kohler Muf er
	1	D95357	Robin Muf er
24	1	515-000-012	Muf er Clamp
25	1	330-003-012	Centre Pump Washer
26	1	D95360	Engine Mount Plate
27	1	D95362	Kohler Muf er Extension
28	2	511-000-026	Kohler Exhaust Gasket
29	1	315-477-500	CP56-0814 Fitting
30	1	315-376-500	CP56-0612 Fitting
31	1	319-347-600	CP60-0812 Fitting
32	1	319-337-600	CP60-0612 Fitting
33	1	D95353	Battery Bracket
34	1	D95351	Heat Shield Kohler
35	1	410-000-013	Battery
36	1	410-000-056	Battery Lead Cover
37	2	410-000-016	Battery Lead 27"
38	2	410-000-014	Battery Small Lead 18"
39	1	516-000-025	Fuel Tap
40	1	516-000-013	1/4" Fuel Hose per mtr
41	2	516-000-016	Hose Clamp 1/4"
42	1	345-400-000	Oil Hose 1/2" Ortac per mtr
43	2	111-311-080	Hex Bolt M8 x 80
44	6	111-311-016	Hex Bolt M8 x 16
45	14	131-221-001	Plain Washer 5/16"
46	8	132-221-000	Spring Washer 5/16"
47	7	111-311-020	Hex Bolt M8 x 20
48	4	111-311-045	Hex Bolt M8 x 45
49	9	122-131-000	Nyloc Nut M8
50	2	120-132-000	M8 Speed Nut
51	4	111-311-025	Hex Bolt M8 x 25
52	4	112-222-016	Socket Head Cap Screw 5/16" X 1" UNF
53	1	516-000-010	Fuel Tank Bottom Packer
54	1	516-000-009	Fuel Tank Side Packer
55	1	516-000-008	Fuel Tank Top Packer

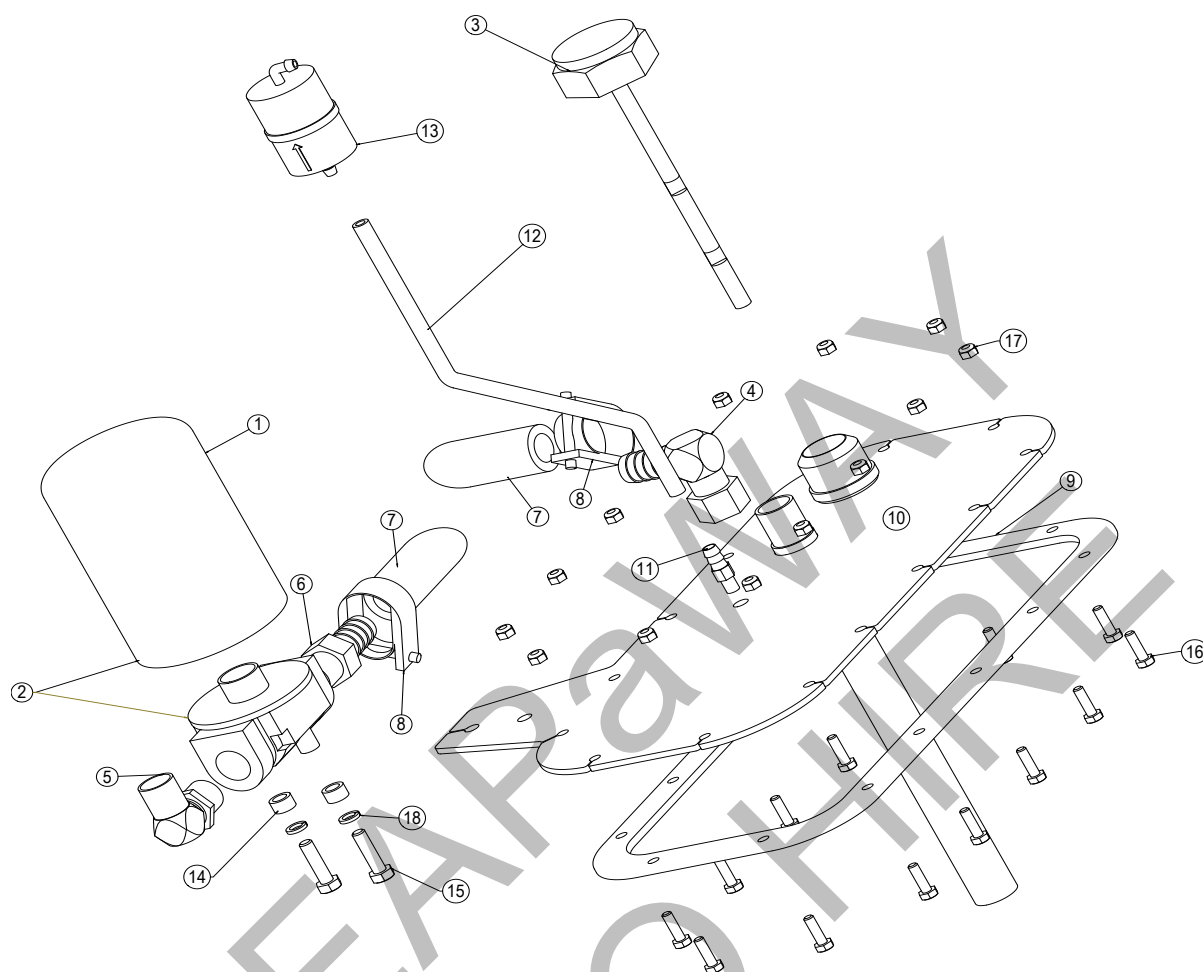


Item	Qty	Part Number	Description
1	1	K93325	Radiator Shroud
2	1	519-000-002	Perkins Radiator
3	1	518-000-020	Radiator Cap
4	1	K93345	Radiator Support Bracket
5	1	K93318	Lower Radiator Hose
6	1	K93319	Top Radiator Hose
7	1	K93330	Fan Shroud
8	1	K93812	Top Radiator Bracket (Shroud)
9	6	518-000-004	Mount Rubber
10	1	K93811	Top Radiator Bracket (Engine)
11	1	519-000-015	Perkins Thermostat Gasket
12	1	519-000-014	K93 Perkins Thermostat
13	1		K93 Perkins Thermostat Housing
14	1	K93825	Lower Radiator Mount
15	1	519-000-038	K93 Perkins Fan
16	1	519-000-011	K93 Perkins Fan Belt
17	1	K93823	LH Front Engine Leg
18	1	K93820	RH Front Engine Leg
19	2	K93835	Angled Bolt Plate
20	2	K93829	Bolt Plate
21	1	519-000-004	K93 Perkins Muffler
22	1	K93304	Exhaust Heat Shield
23	8	120-131-002	M8 Flange Nut
24	8	519-000-017	M8x35mm Stud
25	2	518-000-022	Perkins Exhaust Gasket
26	1	519-000-005	K93 Perkins Exhaust Pipe
27	1	519-000-001	403C-07 Perkins Engine
28	1	K94826	Throttle Cable Link
29	1	519-000-016	K93 Perkins Oil Filter
30	1	K94821	Throttle Cable Bracket
31	1	K93335	Ignition Bracket
32	1	K93317	K93 Perkins Air Cleaner Hose
33	3	100-000-063	57mm Hose Clamp
34	1	100-000-064	70mm Hose Clamp
35	1	K93338	Air Cleaner Bracket
36	1	515-000-034	Inner Air Filter Element
37	1	515-000-033	Outer Air Filter Element
38	1	515-000-055	Pre Cleaner Hose per mtr
39	1	515-000-048	2 3/8" Exhaust Clamp
40	1	K94336	Pre-Cleaner Pipe
41	1	515-000-047	Pre-Cleaner
42	1	330-005-019	Flex Drive Plate
43	1	330-005-020	Bell Housing Plate
44	1	K93808	Pre-Cleaner Bracket
45	4	519-000-027	3/8" x 2" Stud
46	1	330-005-018	Spline Drive Coupling

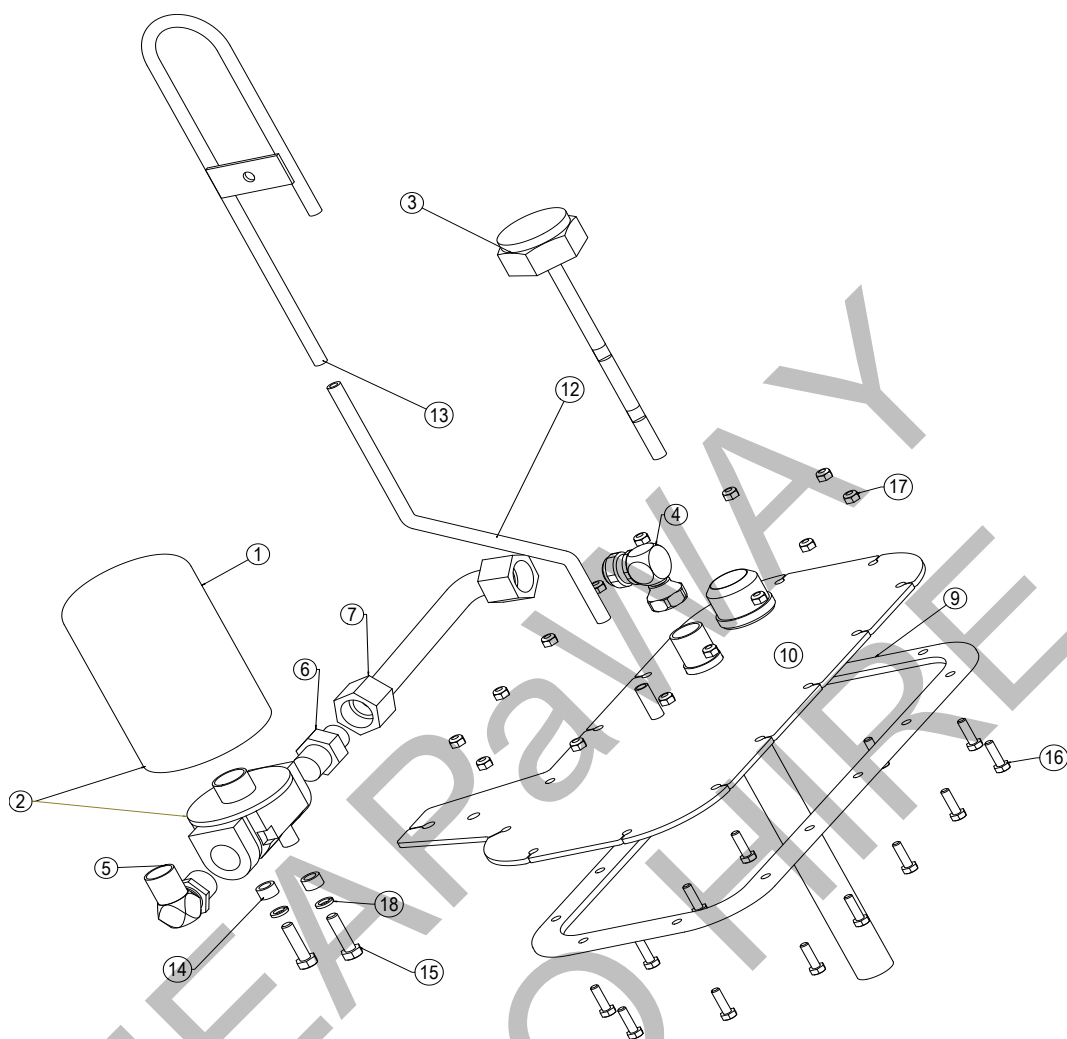
47	1	330-005-017	Bell Housing Centre Disc
48	1	330-002-011	Hydraulic Pump 11.2/3.15cc (3000 RPM)
49	1	315-347-470	Hydraulic Fitting CP46-0808
50	1	319-343-600	Hydraulic Fitting CB60-0812
51	1	319-337-600	Hydraulic Fitting CP60-0612
52	1	316-386-501	Hydraulic Fitting CR2-0612
53	1	316-477-501	Hydraulic Fitting CR2-0814
54	1	315-365-660	Hydraulic Fitting C46-1212
55	1	315-757-600	Hydraulic Fitting C46-1414
56	1	K93723	1/2" Pressure Hose
57	1	K93721	3/8" Pressure Hose
58	4	300-000-002	Hose Clamp 29mm
59	2	K93730	Suction Hose 650mm x 3/4"
60	2	319-367-600	Hydraulic Fitting CP60-1212
61			
62	1	043-300-005	Fibre Glass Pump Cover
63	1	K93810	Engine Cradle
64	1	D95360	Engine Mount Plate
65	2	131-155-000	12mm Copper Washer
66	1	101-000-002	12mm Banjo
67	1	101-000-001	Banjo Bolt
68	1	100-000-054	Hose Clamp 11-18mm
69	1	340-000-002	Hose Sump Drain 3/8" per mtr
70	1	319-166-301	Hose Fitting LFJS1206
71	1	312-650-000	Hydraulic Fitting C78-12



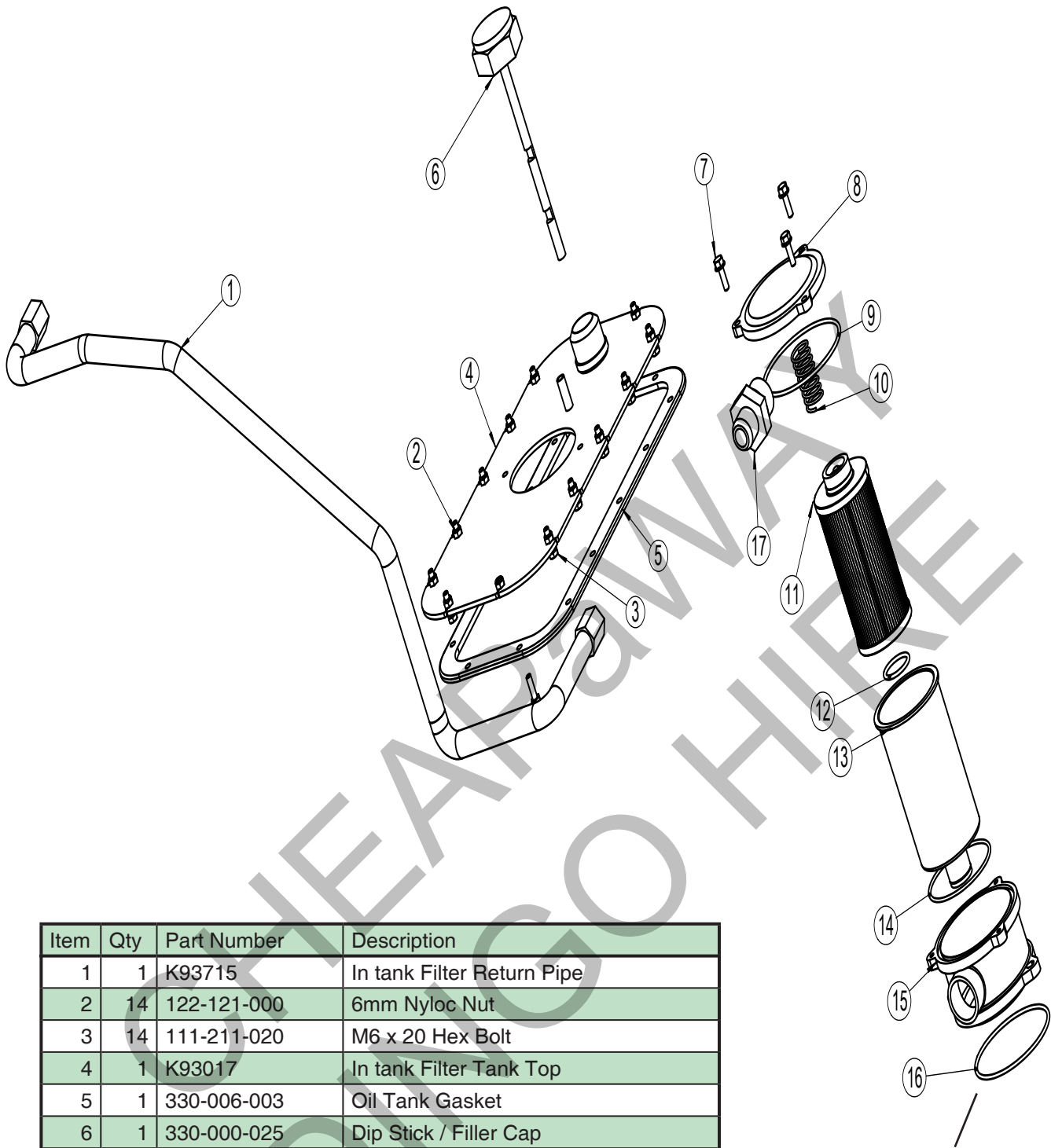
# Oil Tank Top Assembly & Part List



Item	Qty	Part Number	Description
1	1	330-004-014	Oil filter
2	1	330-004-007	Oil Filter Housing With Element
3	1	330-000-025	Dip Stick / Filler Cap
4	1	319-368-600	Hose Tail 90deg LFB90C1212
5	1	315-367-950	Elbow 90deg
6	1	319-167-600	Hose Tail Straight LMP1212
7	1	345-600-000	3/4" Hose
8	2	100-000-057	Hose Clamp 14-27
9	1	330-006-003	Oil Res Gasket
10	1	K93014	Tank Top Welded Assembly
11	1	319-123-200	Hose Tail Straight
12	1	516-000-013	Rubber Hose
13	1	330-000-026	Filter Hyd Tank Breather Z91
14	2	D95722	8mm Spacer
15	2	111-311-030	M8 x 30mm Hex Bolt
16	14	111-211-020	M6 x 20mm Hex Bolt
17	14	122-121-000	M6 Nyloc Nut
18	2	132-221-000	5/16" Spring Washer



Item	Qty	Part Number	Description
1	1	330-004-014	Oil filter
2	1	330-004-007	Oil Filter Housing With Element
3	1	330-000-025	Dip Stick / Filler Cap
4	1	315-368-950	ELBOW DINGO016 90 M/F 3/4'BSPPX1 1/16'JICM
5	1	315-367-950	CP56-1217 Elbow 90deg
6	1	316-679-500	NIPPLE CR21217 M/M 3/4'BSPPM X 1 1/16'JICM
7	1	K94476	Dump Pipe Filter To Tank
8	2		
9	1	330-006-003	Oil Res Gasket
10	1	K93014	Tank Top Welded Assembly
11	1		
12	1	516-000-013	Rubber Hose
13	1	K93036	K94 Hyd Breather
14	2	D95722	8mm Spacer
15	2	111-311-030	M8 x 30mm Hex Bolt
16	14	111-211-020	M6 x 20mm Hex Bolt
17	14	122-121-000	M6 Nyloc Nut
18	2	132-221-000	5/16" / 8mm Spring Washer



330-006-056  
Seal Kit

Item	Qty	Part Number	Description
1	1	K93715	In tank Filter Return Pipe
2	14	122-121-000	6mm Nyloc Nut
3	14	111-211-020	M6 x 20 Hex Bolt
4	1	K93017	In tank Filter Tank Top
5	1	330-006-003	Oil Tank Gasket
6	1	330-000-025	Dip Stick / Filler Cap
7	3	111-211-020	Oil Filter Cap Bolt
	1	330-004-019	HF502.20.122 Oil Filter Assembly
8	1		Oil Filter Cap
9	1		Oil Filter Cap O-Ring
10	1		Oil Filter Relief Spring
11	1	330-004-020	Oil Filter Element HF502.20.122
12	1		Oil Filter Bottom O-Ring
13	1		Oil Filter Cup
14	1		Oil Filter Cup To Body O-Ring
15	1		Oil Filter Body
16	1	330-006-055	Oil Filter Body O-Ring



Product Name: K9-3				
Summary of Product Application	The K9-3 is the power plant for the attachments. Designed to be operated by a single operator, from the operators standing platform at the rear of the machine using the hydraulic lever system.			
Hazards	Risk Assessment			
	Probability	Exposure	Consequence	Risk Level
Moving parts	Unusual	Occasional	Serious	Mod/Substantial
Pinch points	Unusual	Occasional	First aid	Acceptable
Movement of load carried by unit.	Unusual	Occasional	Serious	Mod/Substantial
Tip over	Unusual	Occasional	Serious	Mod/Substantial
Hot parts	Unusual	Occasional	First aid	Acceptable
Fire and explosion	Possible	Occasional	Casualty	Mod/Acceptable
Electricity	Unusual	Occasional	First aid	Acceptable
Noise	Very likely	Occasional	Serious	High
Spurting hydraulic fluid from hose leak.	Possible	Occasional	Casualty	Mod/Acceptable

Control measures	<ul style="list-style-type: none"> <li>• Two-circuit hydraulic system allowing high and low range and better control over the vehicle and attachments.</li> <li>• Quick hitch system eliminates any manual handling involved with installing attachments.</li> <li>• Visibility and mobility of operator.</li> <li>• Operators standing platform reduces ergonomic sprain and strain by upright operation position.</li> <li>• Rubber inserts in operator's platform cushions the operator from vibration.</li> <li>• Spark resistant plastic and fibreglass fuel tank.</li> <li>• Security system disables the hydraulic system to prevent unauthorised use.</li> <li>• Low centre of gravity to prevent tip over.</li> <li>• Hydraulic tank located away from operator and the radiator in the diesel models blows hot air away from the operator.</li> <li>• Safety decals in appropriate positions.</li> <li>• Weight of the Dingo increases the stability and lifting ability.</li> <li>• Electrical cables enclosed and sealed.</li> <li>• Cylinder lock to prevent accidental release of arms and possible attachment.</li> <li>• Operation safety video and training are provided with purchase or hire.</li> <li>• Operator's manual details safe operation of K9-3</li> <li>• The greatest risk is to people working around the Dingo, rather than the operator. To eliminate risk, ensure that an effective barrier is created around the operating machinery.</li> <li>• Ensure that the operating area is free from hazards before work commences.</li> <li>• Appropriate hearing protection should be used if the operator is using the Dingo for prolonged periods in one day. If the Dingo is to be used in an enclosed area for prolonged periods in a day, both the operator and others working around the Dingo should wear appropriate hearing protection.</li> </ul>
Residual Risk of Plant with Control Measures	<ul style="list-style-type: none"> <li>• Moderate/Acceptable</li> </ul>
Additional Safety Comments	<ul style="list-style-type: none"> <li>• The risk assessment has been carried out using the NSCA Risk Score Calculator. For more information contact Dingo.</li> </ul>



# Warranty Statement

## DINGO MINI DIGGERS PTY LTD (ABN 95 060 840 011) POLICY

DINGO MINI DIGGERS PTY LTD warrants to the original buyer/owner that each new Dingo™ or Dingo attachment will be free from any proven defects in the material or workmanship for a period of thirty-six (36) months or 1000 hours, whichever is sooner, after the delivery to the owner provided that:-

1. The Dingo/Attachment has been properly and reasonably used, operated, maintained and regularly serviced.
2. All replacement or repair is authorised by DINGO MINI DIGGERS PTY LTD or an authorised DINGO MINI DIGGERS dealer.

This refers to all Dingo/Attachment parts, excluding motor and battery as outlined below.

During the warranty period, DINGO MINI DIGGERS or their authorised dealer shall repair or replace, at their option, without charge for parts and labour, any part of the Dingo/Attachment which fails because of defects in the workmanship or materials. The owner shall advise DINGO MINI DIGGERS or their authorised dealer immediately of any defect and allow reasonable time for replacement or repair. Travel time for servicemen and transportation of the Dingo/Attachment to DINGO MINI DIGGERS or the dealer's premises for warranty work are the owner's responsibility.

## WARRANTY EXCLUSIONS

This warranty does not cover: -

1. Tyres or other consumables or service parts (nuts and bolts, trencher teeth, etc) replaced as part of a normal maintenance service as opposed to manufacturing defects.
2. Damage resulting from abuse, negligence, accidents, alterations, air flow obstructions, or failure to maintain or use the machine according to the instructions given.
3. Downtime expenses, loss of machine use, rental of another machine or related equipment while repairs are in progress, or other incidental, consequential, or special damages.
4. Communication expenses such as Telephone and Facsimile.
5. Travel time for servicemen.
6. Transportation and Insurance charges for transportation of the failed Dingo/Attachment.
7. Any labour, parts, mechanical adjustments or lubricant expenses which Dingo Mini Diggers Pty Ltd or an authorised Dingo Mini Digger dealer considers should be made as a standard maintenance procedure according to the Dingo maintenance guidelines listed in this manual.
8. Any defect caused by work carried out without the authorisation of Dingo Mini Diggers Pty Ltd or an authorised Dingo Mini Digger Dealer.
9. Damage caused by continued use of the machine after it is known to be defective.
10. Damage caused by overloading or by racing and similar activities.

This warranty is in lieu of all other warranties, expressed or implied, and there are no warranties of merchantability or fitness for a particular purpose.

The benefits conferred by this warranty are in addition to all other rights and remedies in respect of the product which the consumer has under the Trade Practices Act (Commonwealth) and the Fair Trading Act of Queensland.

Machines of this type can be dangerous if used carelessly or improperly. The manufacturer, distributor or selling agent does not accept responsibility for accident either to the operator, to the owner or to any person directly or indirectly or to property if such an accident is caused by circumstances arising otherwise than by the negligence or default of Dingo Mini Diggers Pty Ltd.

#### PARTS INSTALLED DURING MACHINE WARRANTY

Components installed during a machines warranty period shall have warranty coverage for the duration of the machine warranty period or ninety (90) days, which ever is greater, provided the warranty installation is performed by Dingo Mini Diggers Pty Ltd or an authorised Dingo Mini Digger dealer.

#### ENGINE POLICY

The engine in a new Dingo Mini Digger is covered by the manufacturer of that specific engine, not by Dingo Mini Diggers Pty Ltd. The engine owner's manual will have details of the cover provided.

#### BATTERY POLICY

The Battery in a new Dingo Mini Digger is covered by the manufacturer of that specific battery under that companies normal warranty policy.

N.B. Dingo Mini Diggers Pty Ltd reserve the right to change at any time the Dingo Mini Digger product specifications, configurations, and company policies, this is due to our constant commitment to make the best product for the job.



Proudly manufactured by  
**Dingo Mini Diggers Pty Ltd**  
9 Owen Street East  
Dalby Qld, 4405  
Australia

Dalby Head Office	07 4672 5400
Brisbane	07 3272 7088
Sydney	02 9833 8222
Melbourne	03 9334 0300

Adelaide	08 8262 2022
Perth	08 9311 9811
Nth Queensland	07 4796 0555
New Zealand	0011 64 7378 9840

**[www.dingo.ws](http://www.dingo.ws)**