



Kidd
FARM MACHINERY

150 and 180
PASTURE TOPPER



Kidd
FARM MACHINERY

150 & 180 - PASTURE TOPPER

OPERATOR'S MANUAL & PARTS BOOK

Applicable from Serial Number: 180-0001

Machine Identification

IMPORTANT! Ensure this manual is handed to the customer/operator and ask them to read the safety and operating instructions BEFORE USING THE MACHINE.

Please complete the following details for future reference.

Model	KIDD 150 or KIDD 180
Description	SINGLE ROTOR PASTURE TOPPER
Serial Number	
Supplier's Address	
Delivery Date	
Manufacturer's Address	Kidd Farm Machinery Hopton House Hopton Industrial Estate, London Rd, Devizes Wiltshire SN10 2EU Tel: 01380 726085

All enquiries and servicing requirements should be directed to your supplier, whose service engineers are specially trained to maintain and service your machine. To avoid a delay, always quote the machine's Model and Serial Number when making service enquiries or ordering spare parts.

Kidd Farm Machinery pursues a policy of constant development of its products and reserves the right to improve or alter its products without any obligation to modify or replace machines previously sold.

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Introduction

Intended User Group

This manual is intended for trained farmers and others who are qualified to work in agriculture, and who are familiar with assembling, operating and maintaining agricultural equipment.

Read this manual thoroughly to familiarise yourself with the machine before operating or attaching to a tractor. By doing this, you have the optimal working conditions, and you can work in safety.

How to Use this Manual

General

To assist in the use of this manual, it is divided into sections. Each section title is given at the top of each page.

There is a single contents section at the front of the manual, which is divided by section and topic. The page number is given at the bottom of each page.

Terminology

Where reference is made to left, or right, this should be understood to mean left or right when the machine is viewed from the rear.

Meaning of Symbols

WARNINGS, CAUTIONS and **NOTES** have the following meanings:



WARNING: Procedures which must be followed precisely to avoid the possibility of injury.



WARNING: Procedures which must be followed precisely to avoid the possibility of hearing damage.



CAUTION: Calls attention to procedures which must be followed to avoid damage to components.

NOTE: Gives helpful information.

Disclaimer


No liability will be accepted where injury or damage is caused by using the machine in any manner other than that detailed in this manual.


No liability will be accepted in respect of machines modified without specific written permission from Kidd Farm Machinery.


Safety First

General Safety Rules

NOTE: All references to 'tractor' equally apply to any power sources used to drive the machine.


 **WARNING:** All guards must be correctly fitted. Always ensure that all guards are in position, properly fitted and properly maintained. Do not attempt to operate the machine before making this check each time the machine is used.


 **WARNING:** Fit the Power Take Off (P.T.O.) shaft guard & check chains. P.T.O. guard check chains must always be attached to a suitable point on the tractor and machine to prevent movement of the outer plastic shields.


 **WARNING:** Beware of bystanders and animals. Before starting the tractor engine and moving off, check that it is safe to do so. Never operate the machine with bystanders or animals near or on the machine or tractor. Never stand in or walk through the flow of any material being discharged. Never stand between tractor wheels and the machine.

 **WARNING:** Always operate safely. Never operate the machine without maintaining full control of the tractor.


 **WARNING:** Never wear loose fitting or ragged clothing. Avoid injury - always wear clothing which cannot get caught in machinery.

 **WARNING:** Never operate the machine with any parts missing. Check the machine regularly for loose or damaged parts. Pay particular attention to the condition of all safety guards. Always use genuine Kidd Farm Machinery replacement parts in the interest of safety. Failures caused by the use of unapproved replacement parts will not be covered by our warranty, nor will any liability be accepted for damages or injury thus incurred.

 **WARNING:** Always carry out safe maintenance. Before attempting any repair or maintenance to the machine, always switch off the tractor engine and remove the P.T.O. shaft. Do not work under any machine raised on hydraulics unless it is supported by a solid safety support.


 **WARNING:** Beware of dust. Keep tractor cab windows and doors closed at all times to reduce the risk of dust and flying debris from entering. In dusty conditions the use of a suitable mask, to EN 149, is strongly recommended.


 **WARNING:** Never handle leaks in hydraulic hoses which are under pressure. High pressure hydraulic oil can pierce skin and enter the blood stream.


 **WARNING:** Certain tractor implement combinations, dependant on operating conditions, may generate a noise level in excess of 90db at the operator's ear, even in a 'Q' cab. In these circumstances ear defenders should be worn. Keep cab windows and doors closed at all times to reduce noise levels.

Safety First


For the Owner and Operator


 **WARNING:** Always have this operator's manual available for quick and easy reference.


 **WARNING:** Do not start or carry out maintenance on this machine until you have read all the safety precautions to be observed and until you fully understand the controls and functions of the machine as detailed in the following sections. If you do not understand any part of this manual, ask your dealer for assistance.


 **WARNING:** Never operate the machine with any of the rotor blades missing or damaged. To prevent injury when changing blades, always block the rotor to stop it rotating.


 **WARNING:** Never stand on the machine, attempt any maintenance or adjustments with the tractor engine running or P.T.O. shaft connected.


 **WARNING:** The operator must retain full control of machine and tractor functions at all times whilst the machine is in operation.

 **WARNING:** A four leg chain sling is required to hoist the machine. The sling should be approved to a minimum lift capacity of one tonne. The lifting points are clearly marked with 'hook' symbols.

 **WARNING:** Always ensure the tractor front end weight is sufficient to give proper front wheel contact and safe steering when machine is raised on tractor hydraulics.

 **WARNING:** Never operate the machine when bystanders are present as foreign objects could be ejected at very high speed from beneath it.

 **WARNING:** It is the owner's/operator's responsibility to ensure that the machine is fitted with correct lighting and safety markings when moving it on the public highway during the hours of darkness.

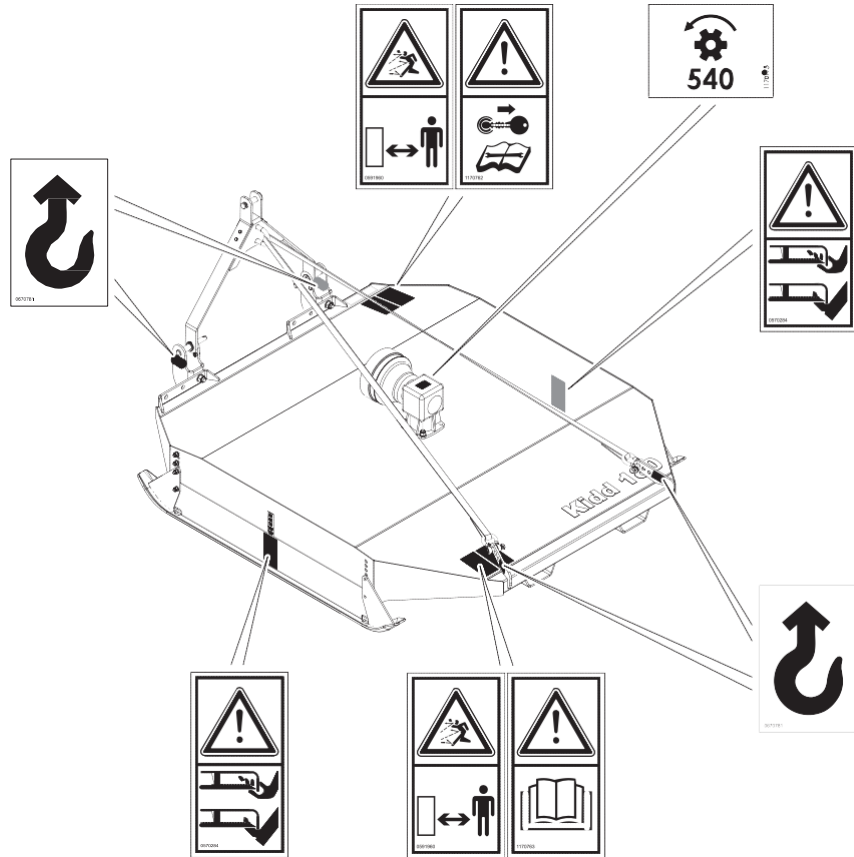
 **CAUTION:** Kidd Farm Machinery will not be held responsible for failure caused by the use of incorrect lubricants. For further information, refer to the lubrication chart 'Lubricants', page 34.

For the Employer

Every employee must be given training at regular intervals on how to use this machinery (at least once a year) in accordance with the guide lines issued by the employer's insurance. Untrained or unauthorised members of staff must not use this machine.

Safety First

Location of Safety Symbols on the Machine



KFM0001

Meaning of Symbols Used



Read and Comply with Operator's Manual

Read and understand the Operator's Manual before attaching and operating this machine.



Stop the Tractor before Working on the Machine

Always let the tractor come to a stop, and remove the starter key before you adjust, lubricate, repair or carry out any maintenance work on the machine.

Safety First



Keep a Safe Distance from the Machine

Danger of flying objects when the machine is working. Bystanders must keep a safe distance when machine is being used.



Beware of Rotating Blades

Danger of cutting or severing of limbs under covered rotating parts. Do not reach or probe under the machine when it is driven by the tractor.



0670781

Machine Lifting Points

When lifting the machine with other than approved tractor attachment points, use the marked lifting points for safe and balanced lifting.



1170775

Input P.T.O. Speed

The rated P.T.O. speed for this machine is 540 rpm. For optimum performance, the machine should be driven at this speed. Under no circumstances, should this speed be exceeded.

Machine Description

Intended Use of the Machine

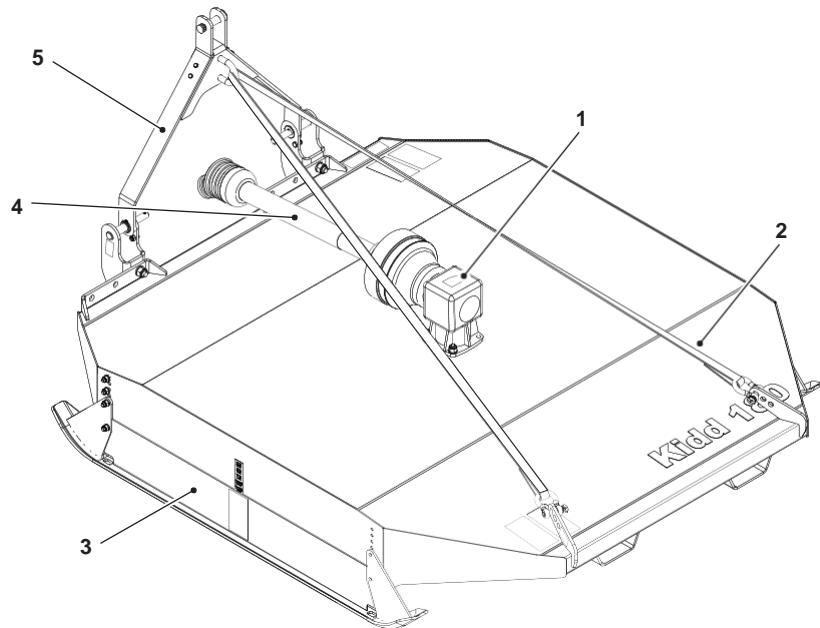
The machine is intended for the topping of grass pasture land after grazing, or for weed and thistle control on agricultural land.

The machine is not intended for grass mowing, or for the cutting of set-aside, or brush/woodland clearance.

Machine Familiarity

The following diagrams show the layout of the machine. The operator should familiarise themselves with the various elements, as they are referred to in other sections of this manual.

View from above

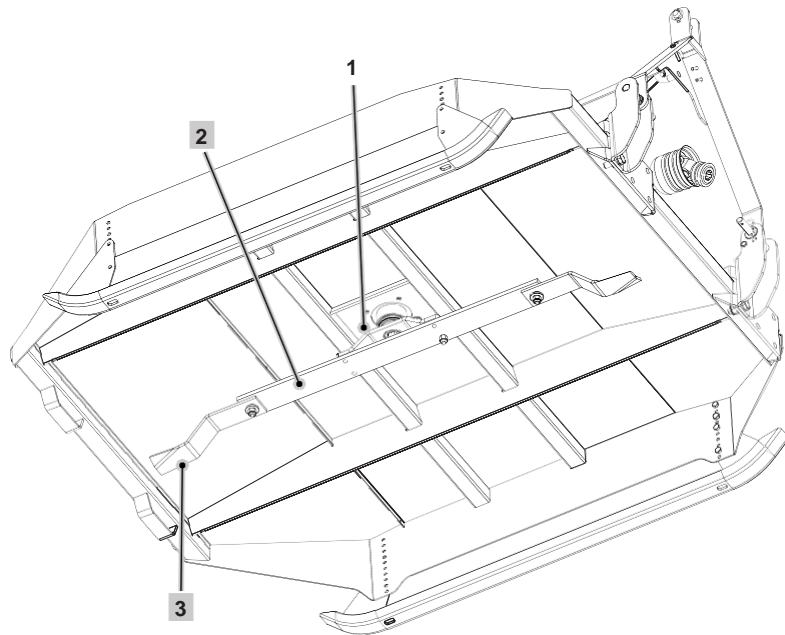


KFM0002

1. Gearbox
2. Transport strap
3. Skid
4. P.T.O. shaft
5. Headstock

Machine Description

View from below



KFM0003

1. Rotor hub
2. Blade carrier
3. Blade

Tractor Requirements

⚠ WARNING: *The tractor must have an adequate weight and capacity to lift and carry the machine. Local legislation governing this ratio must be observed. The correct ratio between tractor and machine ensures correct braking functions and manoeuvrability. An incorrect ratio between tractor and machine can be dangerous.*

The pasture topper is connected to the tractor on the 3 point hitch, and will accept either CAT 1 or CAT 2 linkages. The tractor must also be equipped with a levelling box. If the tractor is fitted with a swinging drawbar, this should be set in its shortest mode or removed completely.

The tractor should be equipped with a six-splined P.T.O. and revolve at 540 rpm.

Unpacking Your Machine

Lifting and Moving

! WARNING: Only use approved lifting equipment which is correctly fastened to the machine. This will increase your personal safety. Failure to follow the safety instructions could result in accidents and serious injuries.

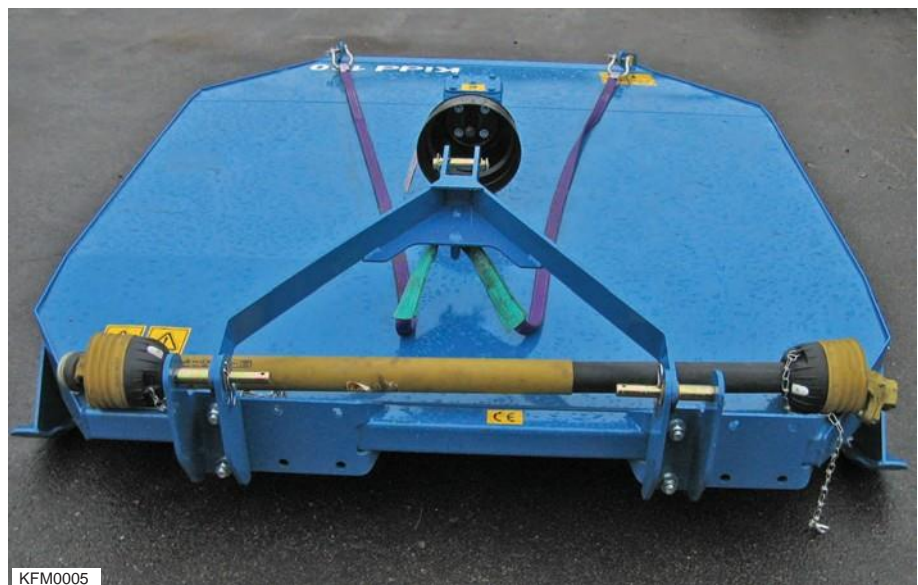
Using a Forklift

! CAUTION: Guides are provided on the machine to enable movement by forklift. It is essential that the blade carrier and blades are positioned parallel with the fork lift tines. The tines should be fully inserted, angled downwards slightly, with the tips engaging underneath the cross member. Failure to position the blade carrier and blades correctly can result in damage to the machine.



1. Fork guides

Unpacking



Remove the P.T.O. shaft from its storage position, and place it safely

Unpacking Your Machine

away from machine. Ensure the manufacturer's instruction book is kept in a safe place for future reference.



Remove any stacking/transport legs that may be attached to the machine.



Check underneath the machine and remove any restrainer wire or cable ties used to prevent blade movement during transport.

Inspect the underside of the machine for damage and ensure the blade rotates freely and does not foul on the body.

⚠ WARNING: Before attempting to access the underside of the machine, ensure it is adequately and safely supported. Do not rely on the tractor's hydraulics. Use safety supports that have a minimum Safe Working Load (SWL) of 1.5 tonnes.

Connecting & Disconnecting Your Machine

Before Connection

! **WARNING:** Ensure that all operators have read and thoroughly understood all the safety procedures. For further information refer to the relevant sections of this manual.

! **WARNING:** When connecting the machine to a tractor there is a risk of personal injury. Failure to follow the safety instructions could result in serious injuries to either yourself or others. Therefore, when connecting the machine and the tractor you should:

- Make sure the tractor cannot roll.
- Make sure that the tractor and the machine have compatible category attachments.
- Never stand between the tractor and the machine during attachment.
- Use the hydraulic three point linkage slowly and carefully.
- When carrying out an attachment you must make sure that the machine is placed on a firm and level surface.

Connecting to a Tractor



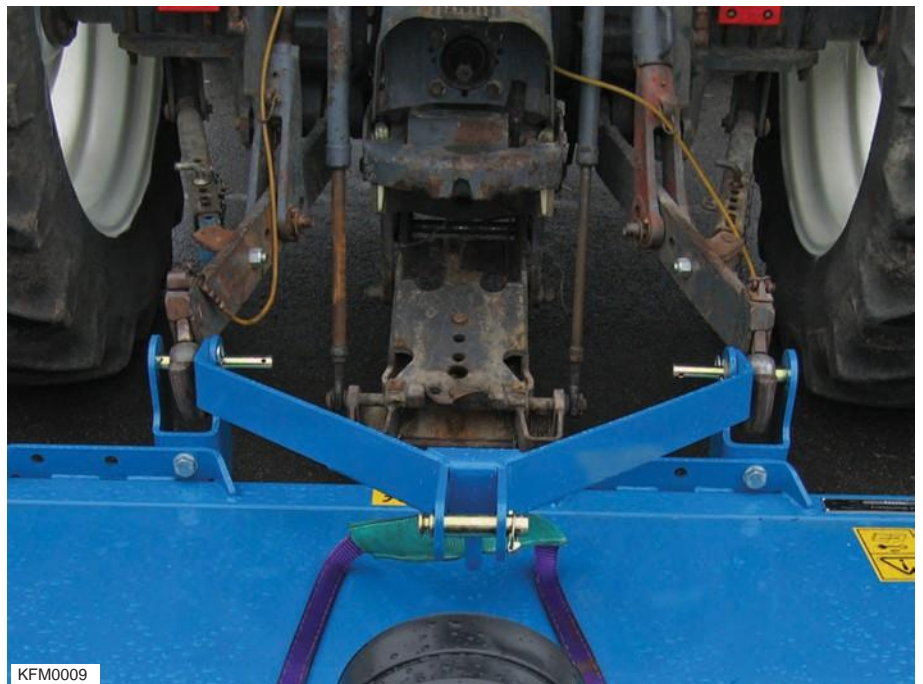
Remove the tractor drawbar, or position it to one side so it does not foul on the P.T.O. shaft.

Connecting & Disconnecting Your Machine



Support the A-frame and remove the three link pins.

Reverse the tractor up to the machine, and adjust the lift arm height to align with the pin holes. Turn off the tractor, apply the parking brake and remove the key.



Attach the lower lift arms and A-frame to the machine using the Cat I/II pins supplied.

Connecting & Disconnecting Your Machine



KFM0010

Connect the top link to the A-frame and adjust the length of the link to remove any slack and to tension the transport strap, without lifting the rear of the machine off the ground.



KFM0011

Start the tractor and raise the machine on the lift arms until the gearbox P.T.O. shaft of the machine and the tractor P.T.O. are at their shortest distance apart.

Turn off the tractor, apply the parking brake and remove the starter key.

Connecting & Disconnecting Your Machine



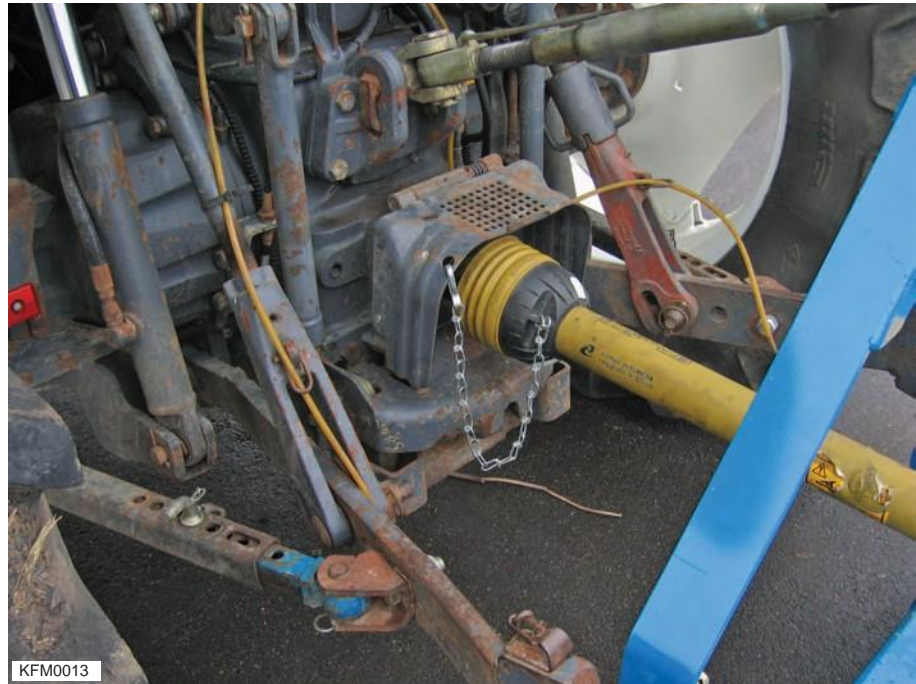
Adjust the tractor stabiliser chains (or bars) so there is no lateral movement when the machine is in the raised position.



Connect the end of the P.T.O. shaft that has the shearbolt to the machine.

Secure the P.T.O. guard restraining chain to the machine.

Connecting & Disconnecting Your Machine



Connect the other end of the shaft to the tractor and secure the P.T.O. guard restraining chain.

On the first occasion when the machine is fitted to a tractor the P.T.O. shaft may need adjusting in length. Refer to the P.T.O. shaft manufacturer's instructions, supplied with the shaft, for details of how this should be done.

Bear in mind that using the machine on another tractor at a later date may necessitate further adjustments or the fitting of a new, longer shaft.

Disconnecting from a Tractor

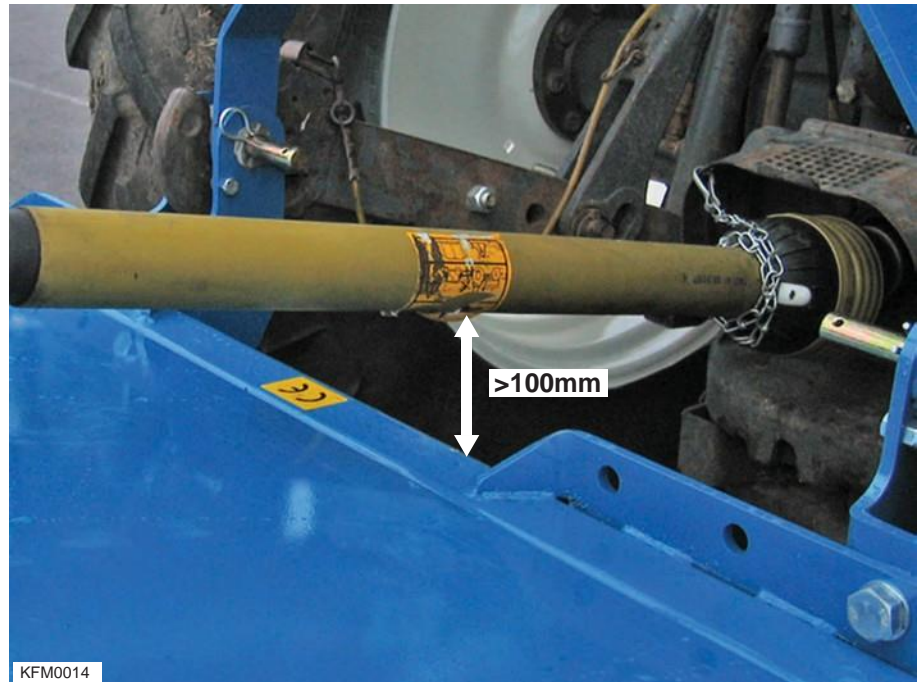
⚠ WARNING: *There is an increased risk of injury when disconnecting the machine from the tractor. Before disconnecting the machine, make sure that:*

- *The machine is placed upon a firm and level surface.*
- *The tractor cannot roll after being disconnected.*
- *The tractor has stopped, the parking brake is applied and the starter key is removed.*
- *The machine has come to a complete stop before commencing work.*
- *Children are never allowed to play close to the machine.*


Disconnection is the reverse of attachment. Refer to 'Connecting to a Tractor', page 14.

Transporting Your Machine

Transport Position




With the P.T.O. shaft correctly connected, raise the machine to a safe transport position. Ensure there is a clearance of at least 100mm between the underside of the shaft and the body of the machine whilst in the transport position. Lock the lift arm stop in this position.

 **CAUTION:** Raising the tractor lift arms too high may cause damage to the P.T.O. shaft if the tractor was to drive over any bumps and the machine was to bounce on the lift arms.

Check that there is no lateral movement on the machine when it is in the raised position. Adjust the tractor stabiliser chains (or bars) if required.

Transport on Public Roads

 **WARNING:** Read all the safety instructions carefully before driving on the public road. This will ensure that dangerous situations and accidents are avoided. Lack of information can cause accidents.

- **Comply with the local law concerning lights, warning and safety signs.**
- **The driver and/or the owner of the machine has the responsibility of complying with the local Road Traffic Acts.**
- **The tractor's manoeuvrability should not be adversely affected. The steering axle of the tractor should be loaded with at least 20% of the tractor's dead weight.**
- **Carrying passengers on the machine is strictly prohibited.**

Transporting Your Machine

Before Driving on Public Roads

The machine should be raised on the lift arms to the Transport Position and the following checks made:


- Is the machine correctly coupled with all securing pins and clips in position?
- Does the machine have any loose or unsecured parts?
- Are the tractor's lights, indicators and beacon working correctly and are they all clearly visible?
- Are there any bystanders or children in the immediate area? If so, ask them to clear the area before moving off.

Driving on Public Roads


- Check the area around the machine before you start. Be aware of children in the danger area of the machine.
- Do not exceed 30 km/h.
- Adjust the speed according to the road conditions.
- Avoid sudden sideways movement with the machine attached.
- Make sure that steering and braking ability are not compromised.
- Take care when turning corners, as the machine may swing out into the path of other road users.

Using your Machine


Before Use

 **WARNING:** Ensure that all operators have read and thoroughly understood all the safety procedures. For further information refer to the relevant sections of this manual.

Running the Machine for the First Time

 Ensure that the machine and the P.T.O. shaft have been correctly connected to the tractor. For further information refer to 'Connecting & Disconnecting Your Machine', page 14.

 Ensure that the immediate surroundings will not cause a restriction to the run-up and checking of the machine.

 Ensure there are no children, bystanders or animals in the immediate area when the machine is run for the first time.

After the machine has been attached to the tractor for the first time, it should be tested to ensure it operates correctly, before putting it to work.

Use the following procedure when running the machine for the first time.

1. Lower the machine so the skids are resting on the ground, and the machine is level.
2. With the tractor at low revs, gently engage the P.T.O. until the machine is running.
3. Carefully increase the P.T.O. speed to 540 rpm.
4. Check that the machine runs smoothly and without vibration.
5. Raise the machine to the transport position.
6. Check again that the machine runs smoothly and without vibration.
7. Lower the machine to ground level again.
8. Gently reduce the tractor revs to idle, and disengage the P.T.O..
9. Apply the parking brake and stop the tractor.

If any faults are identified, refer to, 'Troubleshooting', page 39. If a solution is still not found, consult your local Kidd Farm Machinery dealer for assistance.

Using your Machine

Pasture Topping

Upon arriving at the location to be topped, lower the machine fully so that both skids are firmly on the ground.



Adjust the top link so the transport strap is slack (approximately 50mm play).

Lift the machine so it clears the ground by approximately 100mm, gently engage the P.T.O. and run at tick-over speed.

Lower the machine to the ground, and increase the P.T.O. speed to 540 rpm.

Select a forward speed that is suitable for the ground conditions and the type of material to be cut.

Check the machine is floating correctly. For further information refer to 'Connecting to a Tractor', page 14.

NOTE: When turning at headlands, lift the machine so the skids just clear the ground. This will reduce field damage in wet conditions.

If the stubble height is not correct, adjust the skid height accordingly. For further information refer to 'Machine Settings and Adjustments', page 23.

Stopping the Machine

When stopping the machine, use the following procedure:

- Reduce forward speed and bring the tractor to a halt.
- Keep the machine lowered onto the ground.
- Reduce engine revs to idle speed, and disengage the P.T.O..
- When the rotor has stopped turning, raise the machine to the transport position.

Using your Machine

Machine Settings and Adjustments

! WARNING: Before working on any piece of attached machinery, ensure that the tractor engine is turned off and the starter key removed to prevent anyone else from starting the tractor while it is being worked on.

! WARNING: Always park on a suitable firm, level surface with the parking brake applied, and ensure the machine has come to a complete stop before commencing work.

! WARNING: Before attempting to access the underside of the machine, ensure it is adequately and safely supported. Do not rely on the tractor's hydraulics. Use safety supports that have a minimum Safe Working Load (SWL) of 1.5 tonnes.

Cutting Height Adjustment



The cutting height of the pasture topper can be adjusted to cut at heights from 30mm to 150mm. This is achieved by moving the bolt-on skids at each side of the machine.

! WARNING: Use assistance when removing the skids. They are heavy and may cause injury.

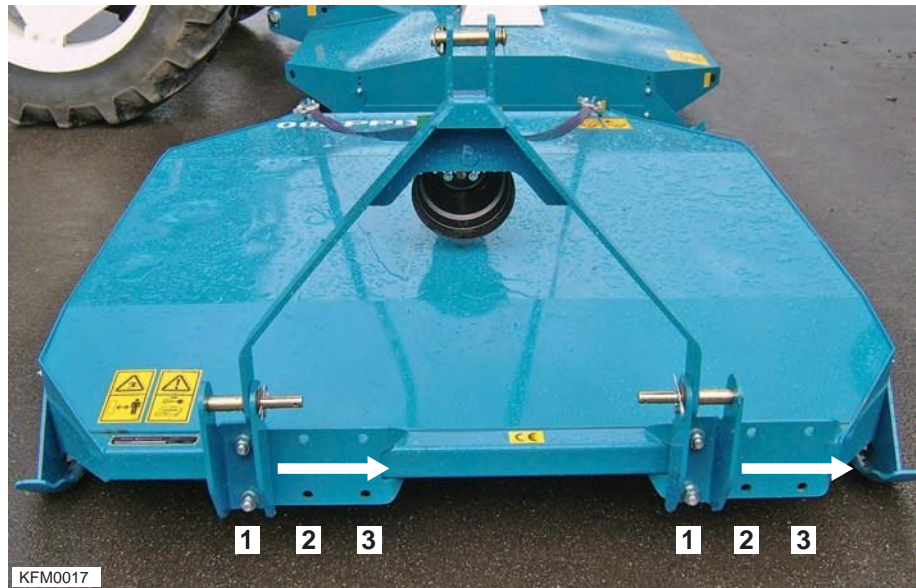
To adjust the cutting height:

1. Raise the machine on the tractor lift arms and support it on safety supports.
2. Remove the nuts, bolts and washers securing the skid to the machine.
3. Reposition the skid to the new desired position, use the cutting height decals on the side of the machine (arrowed) as a guide.
4. Fit and tighten all nuts and bolts securely, see 'Torque Settings', page 36.
5. Repeat the process for the other skid, ensuring that both skids are at the same height setting.
6. Raise the machine on the lift arms and remove the safety supports.

Re-try the machine and re-adjust the skid height if the cutting height is still not acceptable.

Using your Machine

Headstock Position



1. Normal position
2. Offset to right
3. Maximum offset position

The pasture topper can be offset to the right in steps of 112mm. This means the machine can be used so that only one tractor wheel is running on uncut material in front of the machine and may also be useful for cutting underneath low cover, for example at the edges of hedgerows.

NOTE: In the normal position the P.T.O. shafts on the tractor and machine will be in line.

To adjust the headstock position:

1. Disconnect the machine from the tractor. For further information refer to *'Disconnecting from a Tractor'*, page 18.
2. Lower the A frame.
3. Remove the nuts, bolts and washers securing the left and right headstock brackets to the machine.
4. Reposition the headstock assembly at the desired position.
5. Fit and tighten all nuts and bolts securely, see *'Torque Settings'*, page 36.
6. Re-attach the machine to the tractor. See *'Connecting to a Tractor'*, page 14.

Using your Machine

Shearbolt Protection

The P.T.O. shaft is fitted with a shearbolt overload protection to prevent damage to the machine if an obstacle is encountered during operation.



The shearbolt is located at the machine end of the P.T.O. shaft. The following procedure should be followed when replacing or inspecting the shearbolt.

1. Disengage the P.T.O..
2. Raise the machine on the lift arms and move to an area with a firm, level surface.
3. Lower the machine and stop the tractor.
4. Apply the parking brake, and remove the starter key.
5. Release the guard restraining chains and disconnect the P.T.O. shaft from the tractor end first, and then from the machine. This will give access to the shearbolt for inspection and replacement.
6. Inspect the machine, shaft and ground for possible causes of failure. Check that the blade rotates freely and does not foul on the body.
7. Remove any bolt remains from the universal joint, and replace the shearbolt with the correct grade of new bolt (four spare shearbolts and nuts are fitted to the top of the A-frame). Ensure the bolt is correctly tightened, see *'Torque Settings'*, page 36.



CAUTION: Only use the size and grade of shearbolt as supplied by Kidd Fam Machinery. For further information refer

to *'Replacement Parts'*, page 41.

8. Connect the shaft to the machine and then the tractor and attach the guard restraining chains.

Re-start the machine as described in *'Running the Machine for the First Time'*, page 21, and check that it operates correctly.

Parking and Storage

Parking



WARNING: *The machine must be correctly secured when parked in storage. A correctly secured machine prevents serious accidents. If the machine is not properly secured when parked it can result in serious injuries or death. Therefore, when disconnecting, make sure that:*

- *The machine is placed on a firm and level surface.*
- *The tractor cannot roll after being disconnected.*
- *The tractor has stopped, the parking brake is applied and the starter key is removed.*
- *The machine has come to a complete stop.*
- *Children are never allowed to play close to the machine.*

Storage

At the end of the season the machine should be readied for winter storage. Carry out the following:

- Clean the machine thoroughly.
- Always check that the machine's safety equipment is not worn or damaged.
- The P.T.O. shaft should be cleaned, oiled and stored somewhere dry so as to avoid damage or corrosion.
- Repair any damaged components.
- Replace any defective components.
- Check and tighten all bolts, see '*Torque Settings*', page 36.
- Lubricate the machine following the lubrication program.
- Repair any paint damage and replace any missing decals.
- Store the machine in a well ventilated building.

Cleaning and Maintenance

Cleaning the Machine



WARNING: Always pay attention to the area and environment when carrying out any cleaning work, this will reduce the risk of injury to you and others.

Before cleaning:

- Check the area around the machine for hazardous or loose material.
- Apply the parking brake and stop the tractor.
- Remove the starter key from the tractor.
- Disconnect the P.T.O. shaft.

Personal Protective Equipment (PPE)

- Protect your body and face when cleaning the machine.
- Wear the correct protective gear for body and face when cleaning the machine. This will protect your body and face from dirt and oil splashes. Insufficient protection of body and face can lead to severe skin and eye injuries.

Cleaning Agents



CAUTION: Some cleaning products contain chemicals that are hazardous to the environment. Always take precautions to prevent spillage of fluids while cleaning.



CAUTION: Only use pH neutral cleaning agents when cleaning the machine. pH neutral cleaning agents give your machine maximum protection. Cleaning agents with either high or low pH value can be corrosive on plastic, rubber and varnished surfaces.



CAUTION: High pressure cleaning equipment may be used to clean. However, the area around the bearings should be cleaned using gentle squirts of water.

After Cleaning

Let the remaining water run off for about one hour.

Cleaning and Maintenance


Regular Maintenance


Regular maintenance carried out at the intervals specified in the maintenance chart will ensure that the machine operates correctly and safely and minimise operational down time.

Component	Interval					
	1st Hour	After 10 Hours	Weekly	Every 2 Weeks	Monthly	Annually
P.T.O. Shaft						
Refer to the supplied P.T.O. shaft manual for guidance on lubrication						X
Gearbox						
Check gearbox mounting bolts, see ' <i>Check and tighten fixing bolts</i> ', page 30.	X		X			X
Check gearbox oil level, see ' <i>Check and tighten fixing bolts</i> ', page 30.		X		X		X
Change gearbox oil						X
Blade carrier						
Check mounting bolts, see ' <i>Blade Carrier</i> ', page 32.	X		X			X
Blades						
Check for damage		X	X			X
Check bushes for wear, see ' <i>Blade Replacement</i> ', page 33.		X			X	X
Head Stock						
Check mounting bolts, see ' <i>Headstock Position</i> ', page 24.	X	X		X		X
Other						
Check all other fasteners.					X	X

Cleaning and Maintenance

Maintenance Safety

 **WARNING:** Before attempting to access the underside of the machine, ensure it is adequately and safely supported. Do not rely on the tractor's hydraulics. Use safety supports that have a minimum Safe Working Load (SWL) of 1.5 tonnes.

 **WARNING:** Repair and maintenance work should only be performed if you have the necessary professional knowledge, the proper tools and comply with the following guidance:

- Always park on a suitable firm, level surface with the parking brake applied.
- Ensure the tractor engine is turned off and the starter key removed to prevent anyone else from starting the tractor while it is being worked on.
- Disconnect the P.T.O. shaft.
- Never work between the tractor and the machine if the machine has not been secured.
- Always use original spare parts on the machine.

Lubricating Oil Precautions

WARNING: Avoid excessive skin contact with used oil. Used oil contains potentially harmful contaminants which may cause skin cancer or other serious skin disorders.

Avoid excessive skin contact with used lubricating oils and always adhere to the health protection precautions.

- Avoid prolonged and repeated contact with oils, particularly used engine oils.
- Wear protective clothing, including impervious gloves where practicable.
- Avoid contaminating clothes with oil (particularly those next to the skin). Overalls must be cleaned regularly. Discard heavily soiled clothing and oil impregnated footwear.
- First aid treatment should be obtained immediately for open cuts and wounds.
- Apply barrier creams before each work period, to help prevent lubricating oil from contaminating the skin.
- Use moisturisers after cleaning; preparations containing lanolin help replace the skin's natural oils which have been removed.
- If skin disorders develop, obtain medical advice without delay.
- Wear eye protection (e.g. goggles or a face shield) if there is a risk of eye contamination. Eye wash facilities should be provided in close vicinity of the work area.

NOTE: Used oil must be collected and be delivered to a disposal company, where the oil will be processed according to the governing regulations.

Cleaning and Maintenance

Power Take Off (P.T.O.) Shaft

Refer to the manufacturer's information, (supplied with the shaft) to adjust or service the P.T.O. shaft.

Gearbox

Check and tighten fixing bolts



Check and tighten the gearbox mounting nuts and bolts. Refer to '*Specific Torque Settings*', page 36.

Cleaning and Maintenance

Oil level check and top-up

Before checking the oil level, ensure that the machine is positioned on a firm and level surface.



1. Oil filler plug
2. Oil level plug

Remove the oil level plug on the side of the gearbox, and ensure the oil is filled up to that level.

To top up the gearbox oil level, remove the oil filler plug and carefully top up with oil until the oil starts to flow from the level plug. Use only the recommended grade of oil. For further information refer to *'Recommended Lubricants'*, page 34.

Oil drain and refill

To drain the oil from the gearbox, it is necessary to remove the gearbox from the machine. Remove both the oil filler and level plugs and invert the gearbox over a suitable container and allow the oil to drain.

Dispose of the used oil in accordance with the guidelines in *'Environmentally Friendly Disposal'*, page 35.

Cleaning and Maintenance

Removal

1. Lift and support the machine on safety supports.
2. With assistance, support the blade carrier, remove the split pin and rotor castle nut and remove the rotor from the splined gearbox output shaft. Refer to the illustration in '*Blade Carrier*', page 32.
3. With assistance, remove the four nuts and mounting bolts securing the gearbox to the machine.
4. Remove the gearbox.
5. Replacement is the reverse of removal, but tighten the mounting bolts and castle nut as specified in '*Specific Torque Settings*', page 36.

Blade Carrier



1. Blade carrier mounting bolts and nuts
2. Rotor hub castle nut

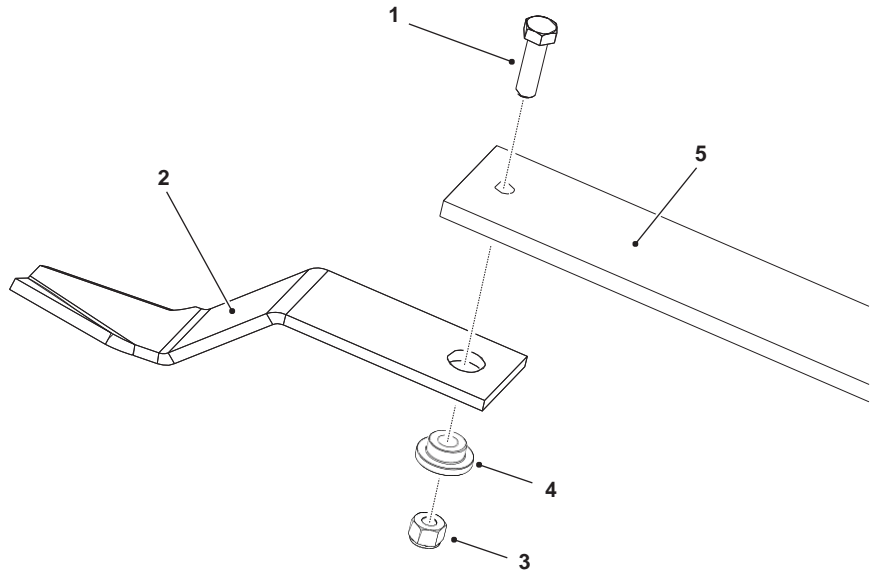
Check the rotor hub for slack. Some settlement may occur after the first hours of working. Re-tighten the castle nut one quarter of a turn at a time, and back off until the split pin can be fitted. Repeat until the slackness is removed.

Check the blade carrier mounting bolts for tightness. Refer to '*Specific Torque Settings*', page 36.

Cleaning and Maintenance

Blade Replacement

The cutting blades are mounted in hardened bushes and are free-swinging to reduce shock load and damage to the transmission.



KFM0019

1. Retaining bolt
2. Blade
3. Retaining nut
4. Hardened bush
5. Blade carrier

If replacing the blades, remove the retaining bolt and nut and dismantle the blade and bush.

Replace the blade and/or the bush and reassemble to the carrier with a new nut and bolt.

Tighten the retaining bolt and nut bolt. Refer to '*Specific Torque Settings*', page 36.

Lubricants

Recommended Lubricants

Supplier	Gearbox(es)	Grease Nipples	Roller Chains
BP	Energear Hypo 80W-90 EP	Energrease L2M	Penetrating oil
Castrol	Multitrax 80W/140 EPX 80W/90 EPX 85W/140	Castrol MS 3 Castrol APS 2	Chain grease
STAT Oil	Gearway G4 80W-90	MP Grease (Moly)	Super oil for chain saws
Q8	Q 8 T 55 80W/90	Q 8 Rembrandt Moly S2	Q 8 Giotto/Q 8 Wagner 220
Mobil Oil	Mobilube HD 80W/90	Mobilgrease Special	Mobilvactra No. 2
Shell	Spirax HD 80W/90	Retinax A	Malleus HDX
Texaco	Geartex EP-C 9-W/90	Molytex 2 Molytex EP 2	Way Lubricant
OK	OK Gearoil GL 5 80W/90	OK Molygrease	OK Compound 2
Hydro	Hypoid Gearoil 80W/90	Moly D Grease	Moly chain wheel grease

Disposal

Environmentally Friendly Disposal

When the machine has reached the end of its service life, it must be disposed of in the correct way. Please observe the following guidelines:

Metal Parts

Send the parts to an authorised recycling station. Larger scrap parts must be taken to an authorised breaker's yard where they can be processed in accordance with current regulations.

Rubber parts

Send the parts to an authorised recycling plant where they can be processed in accordance with current regulations.

Plastic

Send the parts to an authorised recycling plant where they can be processed in accordance with current regulations.


Oil

All oil must be emptied from the machine. The oil that has been drained from the machine must be sent to a breaker's yard where it can be processed in accordance with current regulations.

Tightening Guidelines


Torque Settings

Specific Torque Settings

 CAUTION: This table refers to bolts that MUST be tightened to the figure shown. Where a specific torque setting is given it should be used instead of the information shown in the “General Torque Settings” table.

Fastener	Torque Setting (Nm)
P.T.O. shaft shearbolt	26
Gearbox mounting bolts	225
Blade carrier bolts	225
Cutting blade bolts	225
Rotor hub castle nut	Refer to ‘Blade Carrier’, page 32.

General Torque Settings

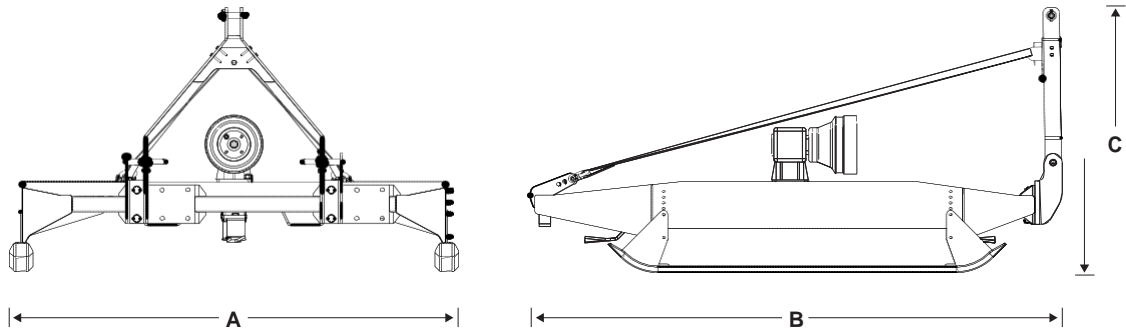
 CAUTION: This table refers to bolts without a torque setting specified above. Please check the “Specific Torque Settings” table first. Where a specific torque setting is given it should be used instead of the information below.

The figures shown are for the torque moment for bolts of normal metric thread quality 8.8 black and/or galvanised and ungreased when tightened on a smooth surface or a plain washer.

Thread Diameter (mm)	Nm + 10% - 0
5	6
6	10
8	26
10	52
12	90
14	144
16	225
20	436
22	594

Technical Specifications

Specifications



KFM0020

		Kidd 150	Kidd 180
A	Overall Width	1670 mm	1970 mm
B	Overall Length	2320 mm	2320 mm
C	Overall Height (max.)	1141 mm	1141 mm
	Weight	250 kgs	290 kgs
	Number of Rotors	1	1
	Number of Blades	2	2
	Cutting Width	1500 mm	1800 mm
	Linkage Mounting	Cat. I & II	Cat. I & II
	P.T.O. Speed	540 r.p.m.	540 r.p.m.
	Power Requirements	22kW (30hp) at P.T.O.	22kW (30hp) at P.T.O.
	Cutting Height	30-150 mm	30-150 mm
<p><i>NOTE: All weights, dimensions and power requirements are approximate and are for guidance only.</i></p>			

Conversion Chart

Converting between Measuring Systems

Basic Unit	SI Metric Unit	Conversion Number
Length	1 metre (m)	39.4 inches (in), 3.3 feet (ft), 1.1 yard (yd)
Area	1 m ²	10.8 ft ² , 1.2 yd ²
Volume	1 litre (l), 1 dm ³	1.76 pints (pt), 0.22 gallons (gall) (Imp), 0.26 gall (US)
Speed	1 m/s	3.6 km/h, 2.24 mph
Force	1 Newton (N)	0.22 lbf
Power	1 kW	1.34 hp, 860 kcal/h, 737 ft lbs/s
Mass	1kg	35 ounces (oz), 2.2 pounds (lb), 0.0197 hundredweight (cwt)
Moment of Force	1Nm	8.8 lbf in, 0.74 lbf ft
Pressure	1 kPa	0.01 atmospheres, 0.14 lbf/in ²
Revolutions	Min ⁻¹	r.p.m.

Troubleshooting

Problem Resolution

The chart below is intended to help in diagnosing and rectifying any problems with your machine. If the problem persists, please consult your supplier, or contact Kidd Farm Machinery. See the Machine Identification page at the beginning of this manual.

Fault	Possible Cause	Remedy
Shear-bolt failure on startup	Tractor revs too high	Reduce revs to idle before engaging P.T.O.
Shear-bolt failure on startup	Incorrect shear bolt	Check the shear bolt is the correct grade and size.
Shear-bolt failure in operation	Obstacle encountered	Inspect ground for stones, stumps, etc. before replacing with the correct grade of bolt
Excessive vibration	Broken or missing blade	Check blades and replace with new if necessary
Uneven stubble	Travelling too fast	Reduce forward speed
Ragged stubble	Blunt blades	Replace blades
Scalping ground	Skids set too low	Reset skid height
Excessive ground marking	Topper not following ground contours correctly	Check transport strap and adjust top link if necessary
Uncut material	Heavy crop	Reduce forward speed, or cut twice

Warranty

Guidelines for Warranty

The warranty period for this product is 12 months from the date of purchase. The warranty does not include parts subject to wear.

Warranty claims can be made to Kidd Fam Machinery via your local supplier, or where you purchased the machine.

Kidd Fam Machinery is not liable for any damage arising from any incorrect operation of the machine. Therefore, read this instruction manual before putting the machine into use. Also, always check that the machine/equipment is working properly before and during use.

Replacement Parts

Ordering Replacement Parts

Model Identification


When ordering replacement parts please:

- Quote the machine model and serial number.
- Quote the complete part number and description.
- State your chosen method of delivery, e.g. post, road transport, or overnight express.
- Where reference is made to Left, or Right, this should be understood to mean left or right when the machine is viewed from the rear.

NOTE: We reserve the right to make alterations and improvements to machines during future production without obligation to update machines previously sold.

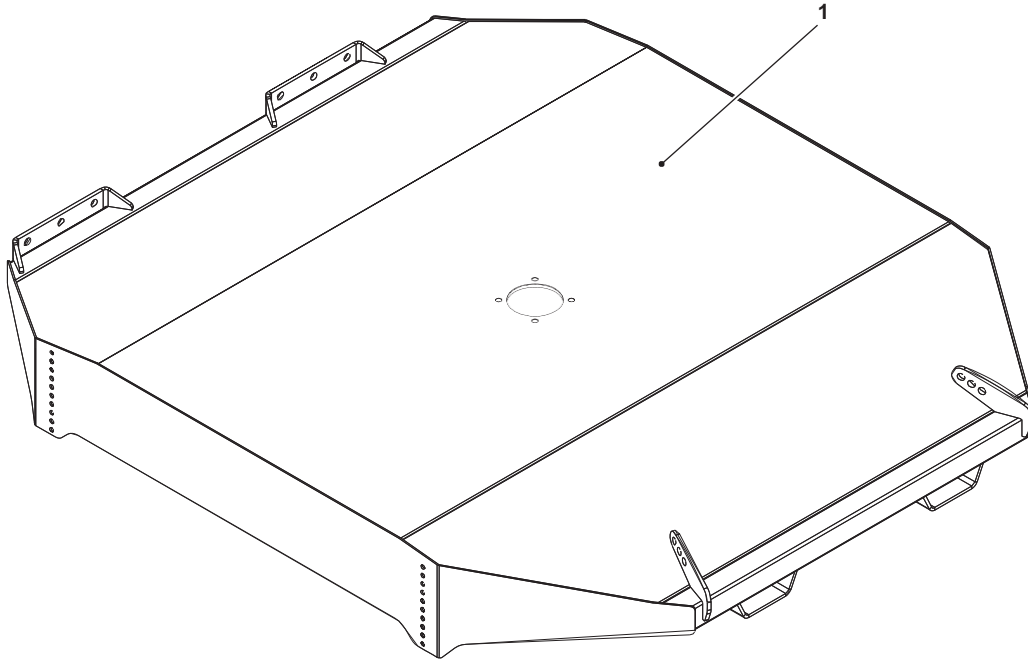
NOTE: The illustrations in this book are not scaled drawings; they are intended for identification purposes only.

Non-Approved Parts

 **WARNING: Safety First. Use only genuine Kidd Farm Machinery spare parts for this machine. Use of spare parts not supplied, or amended, by Kidd Farm Machinery could result in injury to the operator or damage to the machine, and invalidate the warranty.**

Replacement Parts

Single Rotor Body Assembly

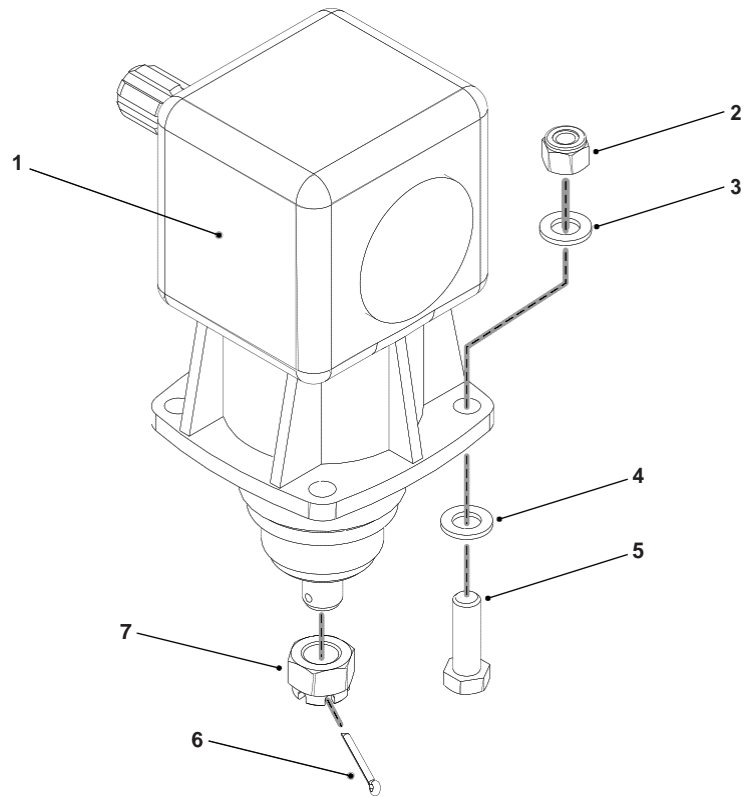


KFM0021

Ref. No.	Part No.	Description	No. Used
1	1800010	Body Assembly 180	1
1	1800150	Body Assembly 150	1

Replacement Parts

Gearbox

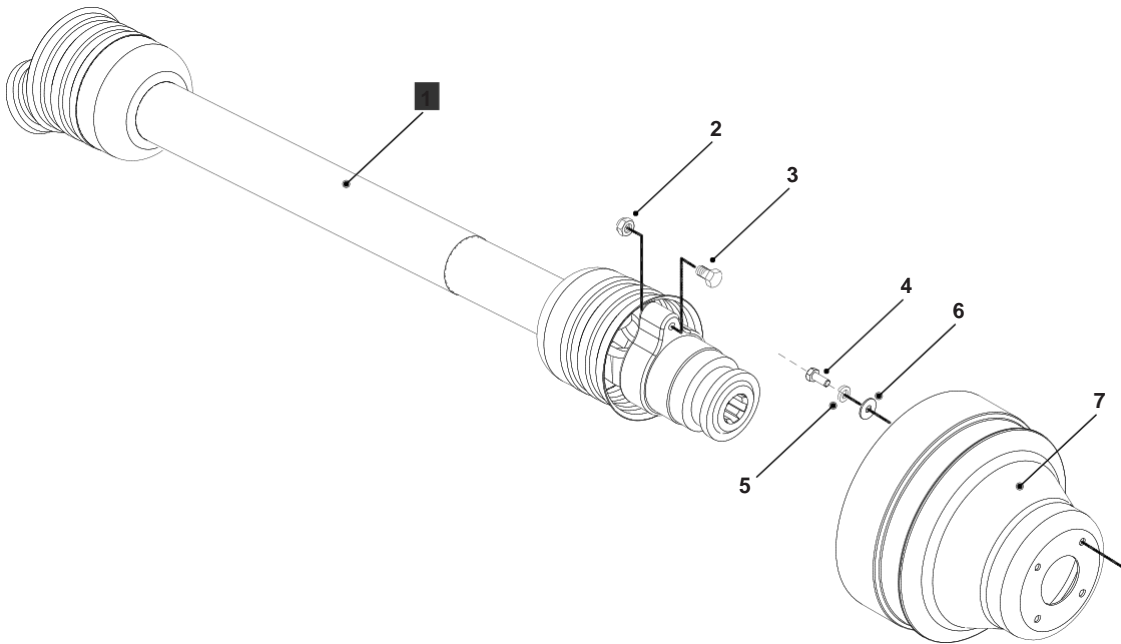


KFM0026

Ref. No.	Part No.	Description	No. Used
1	1800070	Gearbox LF-205J 1:1.47 (9.205.829)	1
2	0500115	M16 Stiff Nut	4
3	0500455	M16 Form A Washer	4
4	0500455	M16 Form A Washer	4
5	0500360	M16 x 50 Bolt	4
6	0500574	Split Pin	1
7	1800069	Castle Nut	1

Replacement Parts

P.T.O. Shaft and Cone Assemblies

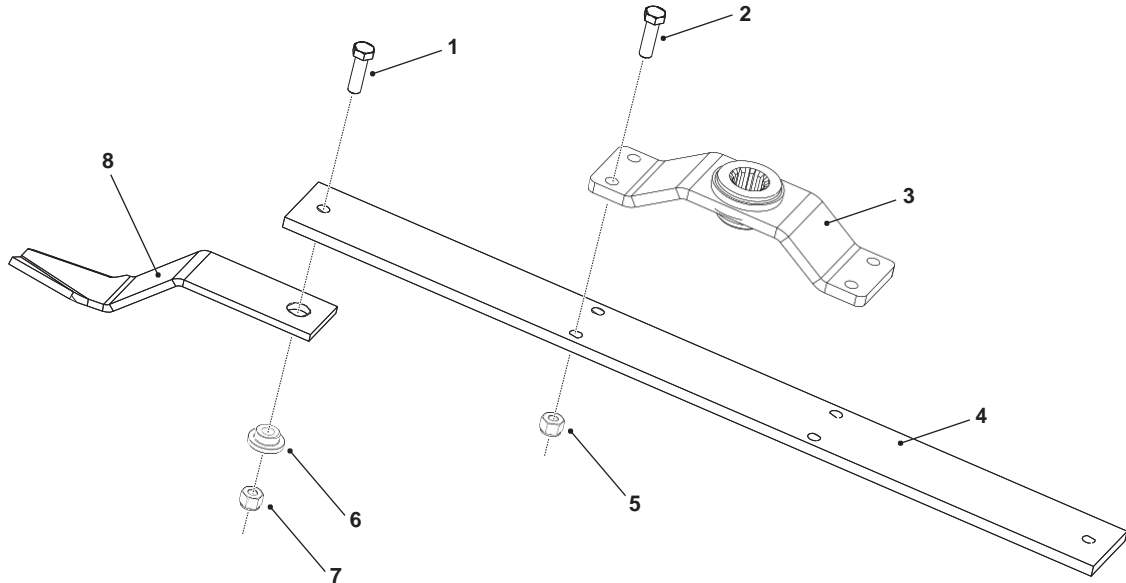


KFM0027

Ref. No.	Part No.	Description	No. Used
1	1800073	P.T.O. Shaft T40-1110EN-C12-B02 (10.9 bolt)	1
2	0500112	M8 Stiff Nut	1
3	1800077	M8 x 50 Hex Bolt GDR 10.9 (Black) Shearbolt	1
4	0500242	M8 x 20 Setscrew	4
5	0500462	M8 Spring Washer	4
6	0500983	M8 Form G Washer	4
7	1440402	P.T.O. Cone - Ref. BYPY 41703	1

Replacement Parts

Rotor Hub and Blades

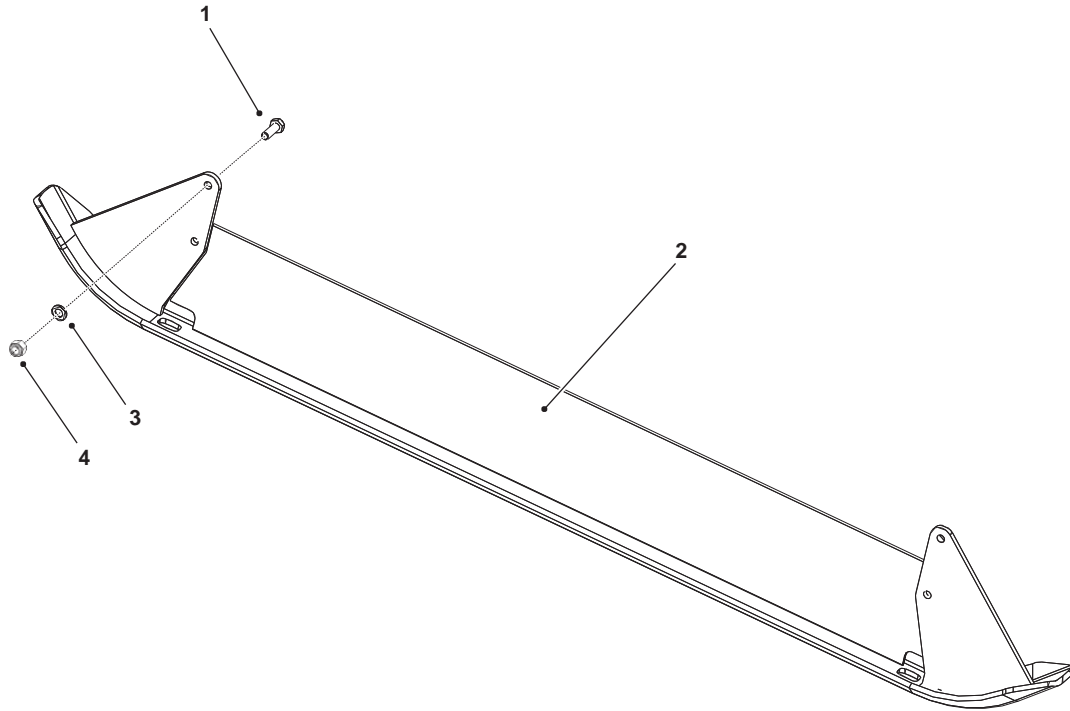


KFM0024

Ref. No.	Part No.	Description	No. Used
1	5003590	M16 x 60 Struct Bolt 10.9 Galv.	2
2	0500371	M16 x 55 Bolt	4
3	1800040	Rotor Hub W. A.	1
4	1800037	Blade Carrier - 180 Topper	1
4	1800157	Blade Carrier - 150 Topper	1
5	0500115	M16 Stiff Nut	4
6	1800047	Blade Pivot Bush	2
7	5003604	M16 Nyloc Nut Galv.	2
8	1800044	Topper Blade R.H.	2

Replacement Parts

Skids and Fasteners

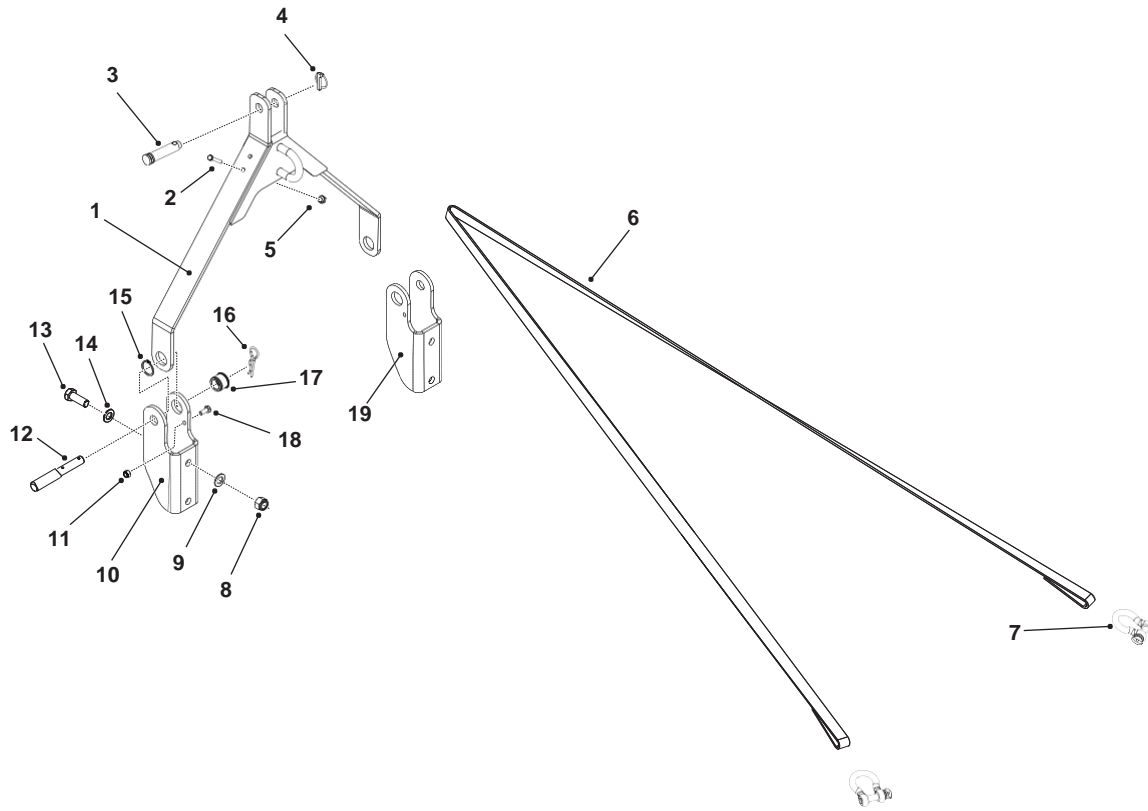


KFM0022

Ref. No.	Part No.	Description	No. Used
1	0500293	M12 x 35 Setscrew	8
2	1800025	Skid Assembly (Single Rotor)	2
3	0500454	M12 Form A Washer	8
4	0500114	M12 Stiff Nut	8

Replacement Parts

A-Frame, Linkage Brackets and Lifting Strap

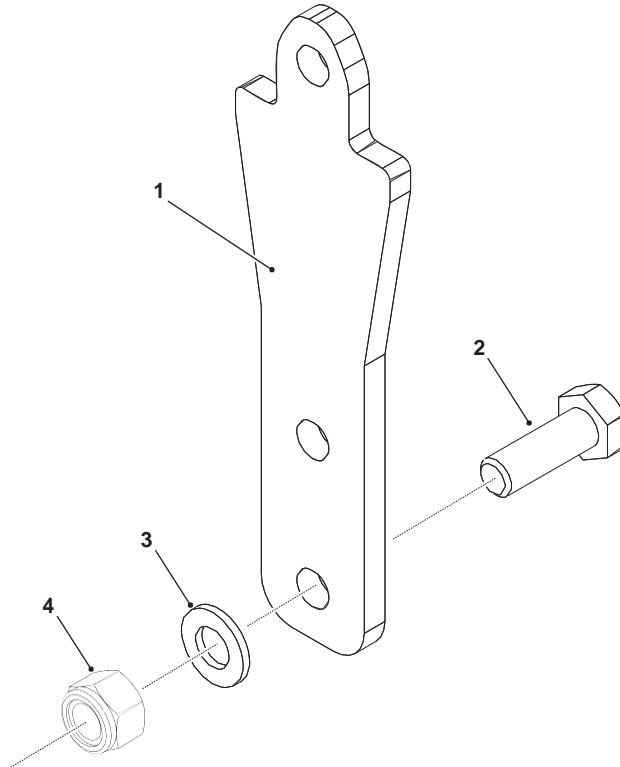


KFM0023

Ref. No.	Part No.	Description	Qty
1	1800030	A-Frame/Head Stock	1
2	1800077	M8 x 50 Hex Bolt GDR 10.9 (Black) Shearbolt	4
3	0590965	Linkage Top Pin	1
4	0500723	Linch Pin	1
5	0500112	M8 Stiff Nut	4
6	1800038	Lifting Strap with Sleeve (4 metre)	1
7	1800039	Bow Shackle 16mm	2
8	0500116	M20 Stiff Nut	4
9	0500456	M20 Form A Washer	4
10	1800035	Linkage Bracket Left	1
11	0500113	M10 Stiff Nut	2
12	0740035	Linkage Lower Pins	2
13	0501123	M20 x 55 Setscrew	4
14	0500456	M20 Form A Washer	4
15	1030836	Circlip	2
16	0500756	R-Clip	2
17	1800034	A-Frame Pivot Boss	2
18	0500262	M10 x 25 Setscrew	2
19	1800036	Linkage Bracket Right	1

Replacement Parts

Stacking Legs and Fasteners

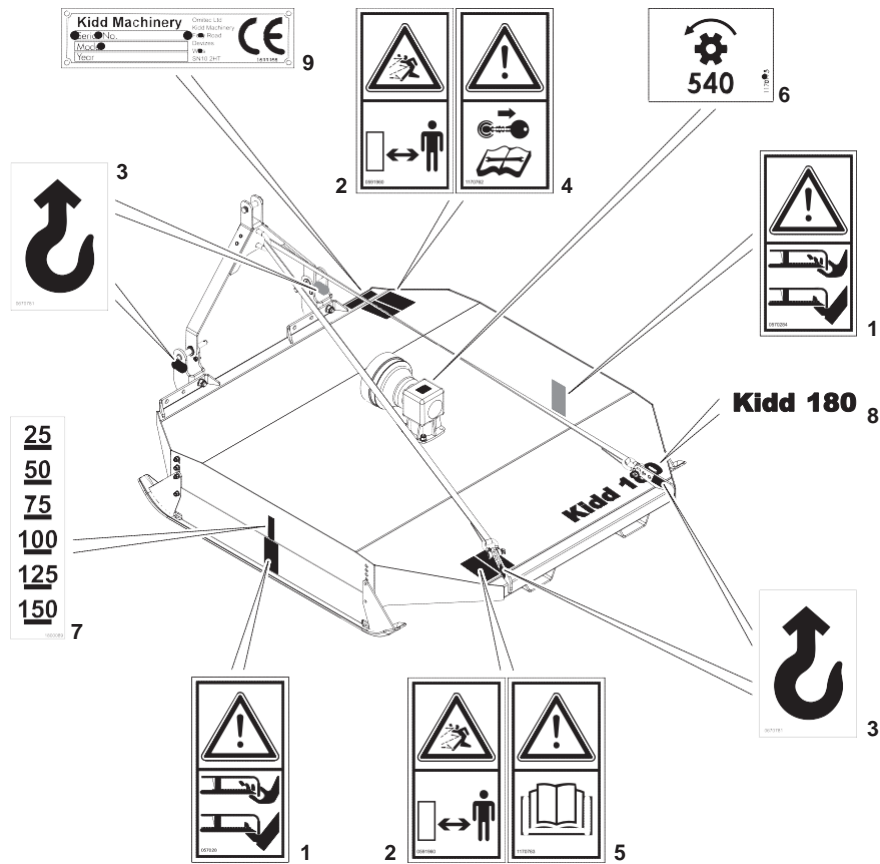


KFM0025

Ref. No.	Part No.	Description	No. Used
1	1800059	Stacking Leg	4
2	0500293	M12 x 35 Setscrew	8
3	0500454	M12 Form A Washer	8
4	0500114	M12 Stiff Nut	8

Replacement Parts

Decals



KFM0028

Ref. No.	Part No.	Description	No. Used
1	0570284	Decal "Rotating Blades under Deck"	2
2	0591960	Decal "Stand Clear of Flying Objects"	2
3	0670781	Decal "Lifting Point"	4
4	1170762	Decal "Remove Key before Maintenance"	1
5	1170763	Decal "Read Operator's Manual"	1
6	1170775	Decal "540 P.T.O."	1
7	1800089	Decal "Cutting Height"	2
8	1800093	Decal "Kidd 150"	1
8	1800090	Decal "Kidd 180"	1
Not shown	1803000	Complete Decal Kit	1

Declaration of Conformity

Kidd Farm Machinery Ltd

UK Declaration of Conformity

1. Topper 150 - 180

Product – 150/180

Type – Topper

Serial Number/Batch -

2. Name and address of manufacturer / manufacturer's authorised representative.

Name

Position

Company Name **Kidd Farm Machinery Ltd**

Address Hopton House, Hopton Ind. Est.

Devizes, Wiltshire

SN10 2EU. England

Telephone +44 (0) 1380 726085

3. Identification / description of actual product.

A PTO powered machine for farm use. For grassland management.

4. A statement that the product conforms with the relevant legislation.

Kidd Farm Machinery LTD Confirms that the following product conforms with -

- Supply of Machinery (Safety) Regulations 2008: Great Britain

5. Where applicable, references to any designated standards.

- ISO 12100:2010

- ISO 4254 – 1:2013

- ISO 4254 - 12

- ISO 4254 - 13

7. Where applicable, reference to the approved body that carried out any conformity assessment activity (name, number, and description of activity).

N/A

8. Signature of manufacturer

Signed by

(Authorised Representative)

Kidd Farm Machinery Ltd

Replacement Parts

Kidd Farm Machinery Ltd