



Operator Manual & Parts List

MAJOR RANGE OF
FLEX WING
TOPPERS

12000FW-HD and 18000FW-HD

HR16909+



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Major reserves the right to modify the machinery and the technical data contained within the manual without prior notice.

Further to this, Major assumes no liability for any damages which may result from the use of the information contained within this manual.

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EEC certificate of conformity for machines

(conforming to Directive 98/37/EEC)

Company: Major Equipment Ltd.
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declares in sole responsibility that the product:

FLEX WING GRASS TOPPER

When properly installed, maintained and used only for it's intended purpose, complies with all the essential Health & Safety requirements of:

- **THE SUPPLY OF MACHINERY (SAFETY) REGULATIONS 2008.**
- **S.I. No. 299 of 2007**, Safety, Health and Welfare at Work (General Application) Regulations 2007 (Ireland).
- **Health & Safety at Work, etc. Act 1974 (c.37) (UK).**
- **EN ISO 14121-1: 2007** 'Safety of machinery. Principles for risk assessment'.
- **EN 745** - Agricultural Machinery - Rotary Mowers and Flail Mowers - Safety.
- **EN ISO 13857** - Safety of machinery: Safety distances to prevent hazard zones being reached by upper and lower limbs.

I certify on behalf of Major Equipment Int. Ltd., that this machine when properly installed and operated correctly, complies with all the essential Health & Safety requirements of all legislation referred to above.

Signature : 

Managing Director

Date 12/06/2013

Introduction

Thank you

We appreciate having you as a customer and wish you many years of safe and satisfied use of your machine.

Using Your Operator's Manual

This manual is an important part of your machine and should remain with the machine when you buy it. Reading your operator's manual will help you and others avoid personal injury or damage to the machine. Information given in this manual will provide the operator with the safest and most effective use of the machine.

Sections in your operator's manual are placed in a specific order to help you understand all the safety messages so you can operate this machine safely. You can also use this manual to answer any specific operating or servicing questions.

Safety Aspects

Your manual contains special messages to bring attention to potential safety concerns, machine damage as well as helpful operating and servicing information. Please read all the information carefully to avoid injury and machine damage.

Intended use

This machine is a grass cutting machine and designed for cutting grass. Moreover, it must only be used with a suitable tractor (see "Product Specifications" section of this booklet) and driven by an adequate drive-line of the tractor PTO. All other use is strictly prohibited.

Product Identification

Machine Serial Numbers

If you need to contact MAJOR or your MAJOR dealer for information on servicing or spare parts, always provide the product model and serial numbers. Model and Serial number can be found on the Serial Plate located on the machine.

We suggest that you record your machine details below:

Model No: _____

Serial No: _____

Date of Purchase: _____

Dealer Name: _____

Dealer Telephone: _____



Register Your Product and Warranty Online

To register your product through the Internet, simply go to the Support section on www.major-equipment.com. Completing the information, either online or with the product warranty card, will ensure the customer that their product receives all post sales service and important product information.

This machine is warranted for 12 months with. No warranty is given where the machine is being used as a hire machine. Warranty is against faulty workmanship or parts.

Warranty covers parts only. All parts must be returned to the manufacturer. No warranty can be considered unless parts are returned. All replacement parts will be supplied on a chargeable basis until warranty has been accepted.

Product Specifications

| Model | 12000FW-HD | 18000FW-HD |
|-----------------|---------------|---------------|
| Overall Width | 3.8m (12' 4") | 5.6m (18' 4") |
| Working Width | 3.56m (12') | 5.38m (18') |
| Transport Width | 2.2m (7' 2") | 2.2m (7' 2") |
| No. of Blades | 16 | 24 |
| No. of Rotors | 4 | 6 |
| Power (HP) | 50 - 75 | 60 -90 |
| PTO (rpm) | 1000 | 1000 |
| Blade tip speed | 74m/s | 74m/s |
| Cutting Height | 12-250mm | 12-250mm |
| Weight | 1116kg | 1395kg |

Safety

Machine Safety Labels

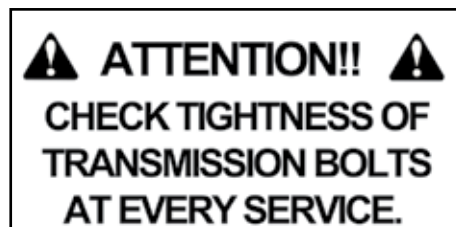
The machine safety labels shown in this section are placed in important areas on your machine to draw attention to potential safety hazards.

On your machine safety labels, the words DANGER, WARNING, and CAUTION are used with this safety alert symbol. DANGER identifies the most serious hazards.

The operator's manual also explains any potential safety hazards whenever necessary in special safety messages that are identified with the word, CAUTION, and the safety-alert symbol



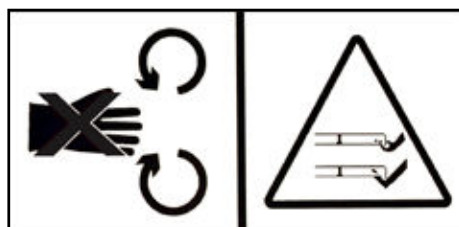
To avoid injury, read the manual



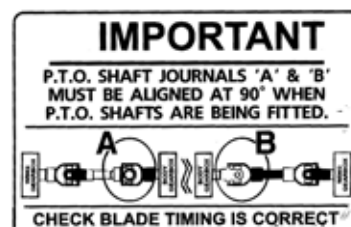
Check the tightness of the transmission



PTO entanglement hazard - keep clear of PTO drives.



Rotating blade hazard



Shaft alignment



Maximum speed



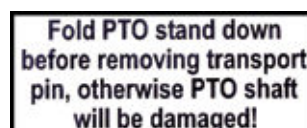
High oil pressure hazard



Grease points



Moving parts



Hazards associated with operating Grass Cutting Machinery

Shear Hazard

Shear hazards are created when the edges of two objects move toward or next to each other closely enough to cut relatively soft material. This can include the parts of the machine under hydraulic control when operating from transport to mowing position. Note, the wing units are designed to float independently of the centre deck & are free to move within operating limits.

Crush Hazard

Bystanders can be injured when machine is lowered into mowing position. Winged machines have crush points around the hinge areas & between the wing & main body. Always use transport locking bars when not in use (winged models only).

Rotating Blade Hazard

All persons are at risk if they place their hands or feet under the machine when it is raised from the ground when the blades are in motion.

Pinch Hazard

Pinch points are created when two objects move together, with at least one of them moving in a circle. This hazard is common in power transmission devices such as Belt Drives, Gear Drives & Rollers. Ensure all guarding is present.

Wrap Hazard

Any exposed, rotating machine component is a potential wrap point. Injuries usually occur when loose clothing or long hair catch on and wrap around rotating parts such as PTO shafts or Drive shafts on the machine. Ensure all guarding is present.

Free-wheeling parts Hazard

The heavier a revolving part is, the longer it will continue to rotate after power is shut off. This characteristic is called 'free-wheeling.' Blades, and various other components, drive shafts etc., will continue to move after power is shut off - often for several minutes. Injuries occur when:

- Operators shut off equipment, and attempt to clean or adjust a machine before components have completely stopped moving.
- Shear bolt protection device in PTO shaft shears & the mowing parts are still spinning but the primary PTO shaft is stationary. Operator awareness is the key to safety around freewheeling parts. Never raise the machine while the blades are still rotating.

Thrown objects Hazard

Machines throw material as a natural part of doing their job. Foreign objects, such as stones, sticks and other debris, may be taken into this equipment and expelled at tremendous speed. These objects are contained by the sides of the machine and by the rear/front rollers / guards / chain guards / rubber skirts depending on model of your machine.

Ensure bystanders are clear from the machine & cannot be hit with debris expelled from the machine. Bystanders or animals in the path of thrown objects could be seriously injured. Never operate machine with decks raised from the ground as this makes the front/rear protection redundant.

Hydraulic Hazard (if applicable)

Hydraulic systems store considerable energy. Careless servicing, adjustment, or replacement of parts can result in serious injury. High pressure blasts of hydraulic oil can injure eyes or other body parts. The following precautions are crucial:

- Make certain the hydraulic pump is turned off.
- Lower attached equipment to the ground.
- Confirm that load pressure is off the system.

A pinhole leak in an hydraulic hose is a serious hazard. A leak may not be visible, and the only sign may be a few drops of fluid. Never inspect hydraulic hoses with your hands, because a fine jet of hydraulic fluid can pierce the skin.

Slips, Trips and Falls Hazard

Slips and falls often result from:

1. Slippery footing on the ground
2. Cluttered steps and work platforms.

The potential for slips and falls can be greatly reduced by using good judgement and practicing good housekeeping on and around equipment.

Noise Hazard

Please note that the machine is normally used outdoors and that the position of the operator is seated in the driving seat of the tractor. It is advisable to consult the prescriptions listed in tractor operator and maintenance manuals.

The acoustic pressure at a distance of 2.6m from the centre of the machine and at a height of 2.0m, with the implement operating in a no load condition can reach 90 dBA. In a loaded condition & a PTO rate of 540 rpm the value can reach 97dBA. Higher rate of PTO input will result in in higher noise levels. Always wear hearing protection.

Operating Safely

This MAJOR machine is designed to operate at a PTO rate which is stated in the Product Specifications part of this booklet. Ensure tractor PTO output is set at a correct RPM rate. This MAJOR machine must only be used for purposes outlined in the Intended Use section of this booklet. All other use is strictly prohibited.



Users should become thoroughly familiar with the contents of this manual before using, servicing and mounting the implement to the tractor and all other pertinent operations. Never wear jewellery, loose clothing such as ties, scarves, belts, unbuttoned jackets or dungarees with open zips which could become caught up in moving parts.



Always wear approved garments complying with accident prevention provisions such as non-slip shoes, ear muffs, goggles and gauntlets. Wear a jacket with reflecting stickers if the implement is used near public highways.



Consult your retailer, the Labour Health Service or your nearest equivalent authority for the information about the current safety provisions and specific regulations with in order to ensure personal safety.



ALWAYS DISENGAGE PTO, SWITCH OFF THE TRACTOR ENGINE AND ENGAGE THE PARKING BRAKE BEFORE MAKING ADJUSTMENT TO THE MACHINE.



NEVER PLACE LIMBS UNDER THE MACHINE WHILE ROTOR(S) ARE TURNING. ROTOR(S) CAN REMAIN TURNING FOR UP TO 1 MINUTE AFTER DISENGAGING PTO.

Workstation

The operator must remain seated while working the machine. If the machine is a winged unit and the wings need to be raised/lowered the operator must not leave the tractor. Always ensure the PTO has been turned off and the parking brake applied before leaving the tractor cab or carrying out maintenance.



NEVER OPERATE THE HYDRAULICS WITH THE TRACTOR SWITCHED OFF

Regulations for use of the transmission

The transmission to the gearboxes is protected throughout the machine by both PTO shafts and bolt down covers. All guarding should be kept efficient and in good condition. If the condition is poor, the guarding should be renewed before the implement is used.



UNLESS IT IS CORRECTLY PROTECTED THE TRANSMISSION COULD CAUSE DEATH SINCE IT CAN CATCH ON PARTS OF THE BODY OR CLOTHING

Ensure retaining chains are correctly anchored on all PTO shafts, preventing them from turning. Ensure drive line can turn easily within the shield. Keep spline grooves clean and greased so that PTO shaft can connect easily. Besides being described in this booklet, the method by which the PTO shaft is connected to the tractor must be checked out with the instructions in the tractor manufacturer's manual.

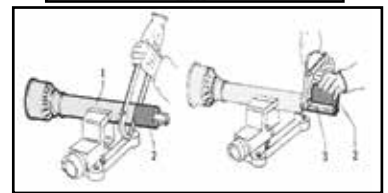
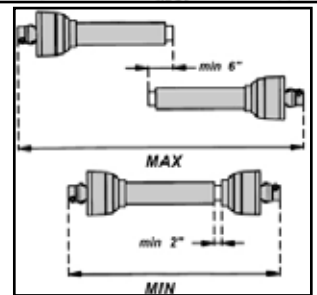
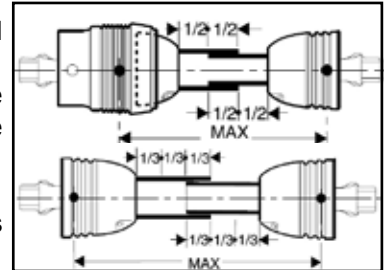
PTO Shaft Safety

Maximum PTO input is specified in the Product Specifications section of this booklet. Contact your nearest dealer or a specialised retail outlet if the PTO must be replaced with a longer one, since this must belong to the same power category and possess the same characteristics. An unsuitable PTO could easily break.

The tractor PTO shaft length may be altered to suit the individual tractor model. When the machine is in operation, the PTO shaft should have a minimum 1/3 engagement as shown in the diagrams. After the machine has been hitched to the tractor, it should be checked in various positions that the drive line is the correct length. If the PTO is too short and tends to slip out of place, it must be replaced with a longer one.

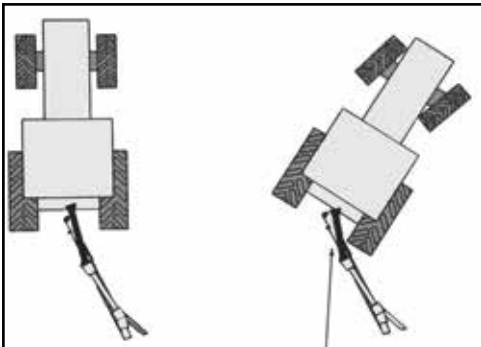
If the PTO shaft is too long, it should be shortened in the following way:

- Set the machine at a minimum distance from the tractor, then brake the tractor and switch off the engine.
- Separate the two halves of the PTO. Insert the female part into the tractor PTO and the male part into the machine PTO, checking that the position is correct by means of the fixing pins.
- Line up the two halves of the PTO together, keeping them parallel.
- Using a felt tip pen, match mark the place where the two halves must be shortened as shown.
- First cut shield "1" and use part "2" as a reference to cut the splined shaft.
- Proceed in the same way for the second half.
- Trim and chamfer the two cut ends of the PTO and clean off all swarf and shavings.
- Grease the two profiles and join the two halves of the PTO together.
- Mount the PTO shaft and check that its length is correct as before.



Trailed machine operation.

Ensure that the PTO doesn't catch the wheel of the tractor when turning sharply.



Driving Safely on Public Roads

Check the local Highway Code regulations before driving the tractor on public highways with an implement attached. Check the reflectors, hazard flashers and/or projecting load indicators are installed when required and efficient. These indicators must be installed correctly and easily seen by the drivers of other vehicles.

Bystanders must not be allowed to lean against or climb onto the machine during transport or while working. Do not allow bystanders to ride on the machine.



MAXIMUM TRANSPORT SPEED MUST NOT EXCEED 30 km/hr (18 MPH)

General safety instructions

Precautions to be taken while working with the machine:

1. Do not operate the machine when you are tired;
2. Before starting mowing, make sure that the area is clear of people or animals.
3. Before starting adjusting the machine, it is mandatory to disconnect the PTO, to turn off the engine of the tractor, apply handbrake and wait for the turning parts to become still and placed on the ground.
4. It is mandatory to read all the safety requirements and the operator's manual of the machine.
5. If you are not sure how to use the machine, please contact the manufacturer or the dealer.

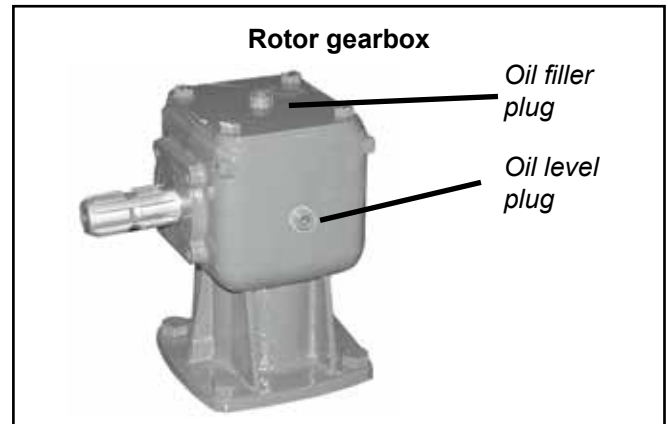
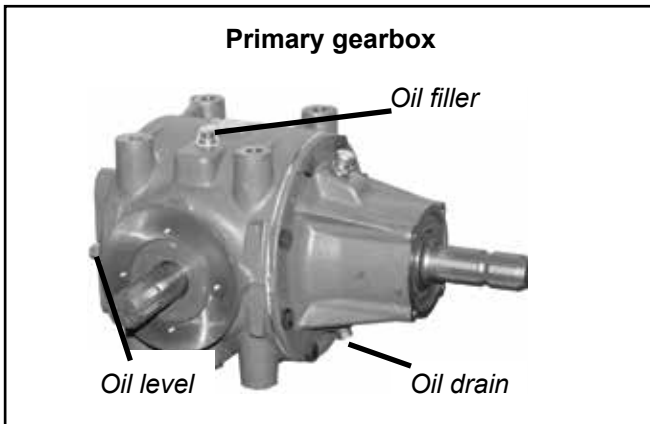
Operating the Machine

Inspections before Use

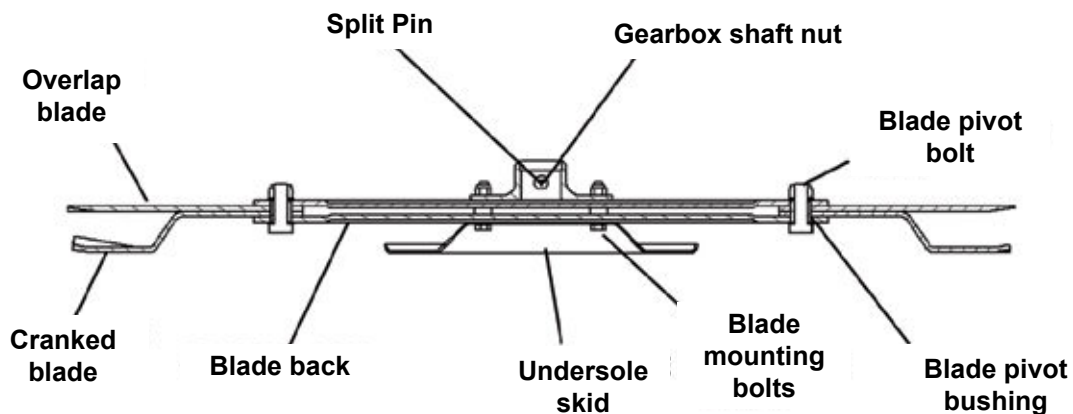


Always disengage PTO, Switch off tractor engine and engage the parking brake before making adjustments to the machine.

1. With the whole machine as level as possible, check the oil level in the Primary Gearbox, top up as required with SAE EP90 gear oil through the oil filler plug indicated. The correct level is at the oil level plug indicated. Check the oil level in the Rotor Gearboxes and top up as required with SAE EP 90 gear oil through the oil filler plugs indicated. The correct level is at the oil level plug indicated

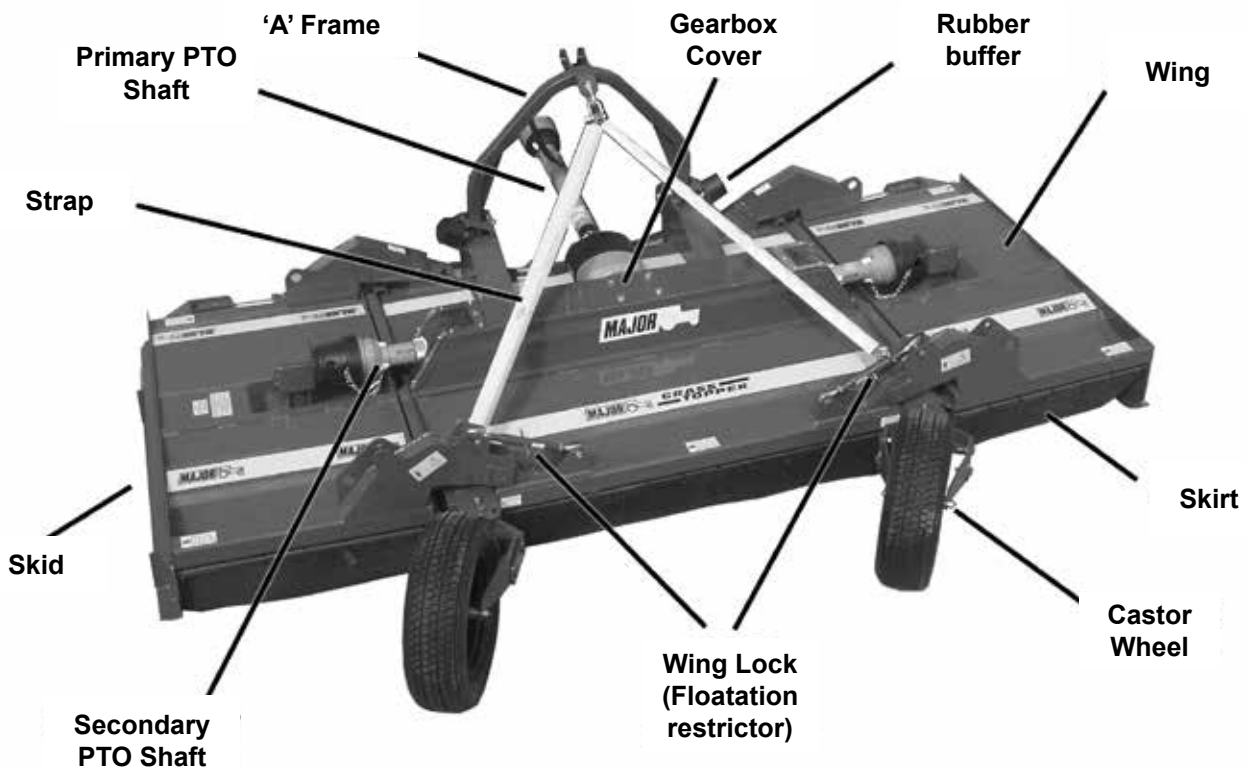


2. Grease the PTO shaft universal joints, drive shaft bearing and carrying arm pivots.
3. Re-sharpen old blades with a grindstone if necessary. Replace bent blades with new ones.
4. Check the blade mounting bolts are tight



5. Ensure the gearbox shaft nuts are tight and retained in place by split pin.
6. Check tightness of all nuts, bolts and retaining screws after the first and second hours of work.
7. Ensure safety guards and flaps are in place at all times where fitted.
8. Due to the corrosive nature of grass when cut, wash down the machine when finished mowing, especially when the machine is being stored for a long period of time.

Key to Main Parts



Starting Regulations



Always check that any imminently dangerous conditions have been eliminated before using the machine. Ensure all guarding is present & the operator is fully aware of the operations of the machine



Always ensure the pins lock the PTO shaft yoke ends onto the spline shafts on both the tractor and the implement. An unlocked shaft could slip out of position, causing notable mechanical damage and serious injury to both operator and bystanders.

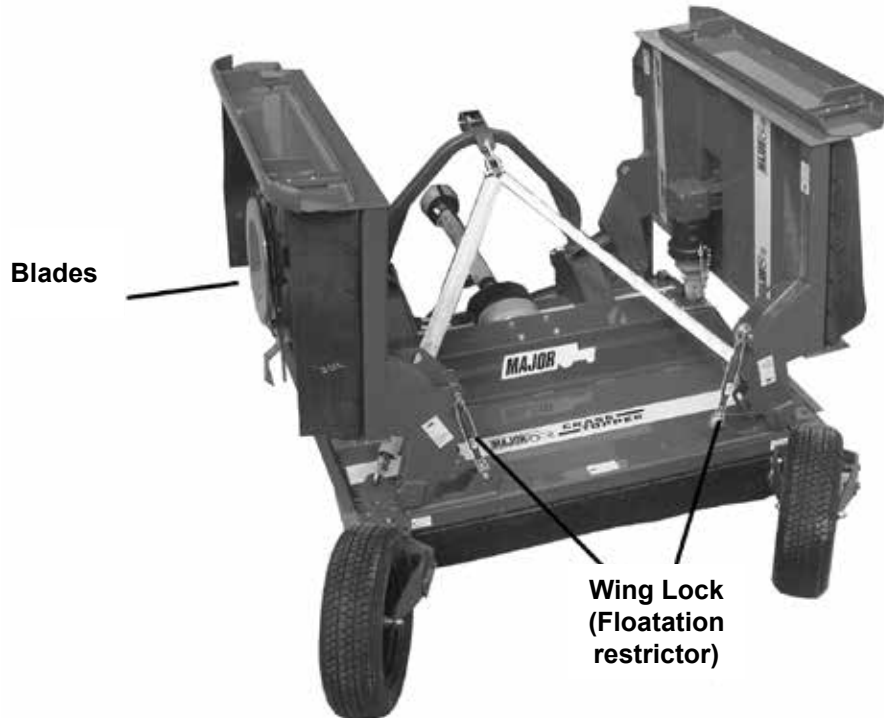
Hitching to the Tractor

ALWAYS OPERATE ON LEVEL GROUND WHEN HITCHING/UNHITCHING THE IMPLEMENT. THIS WILL PREVENT DANGEROUS MOVEMENT. NEVER ALLOW ANYONE TO STAND BETWEEN THE TRACTOR AND THE MACHINE.

1. Reverse the tractor, connect the hitch & secure in position with correct size drawbar pin. Ensure the tractor parking brake is applied.
2. Connect the machine to the tractor,
3. Before connecting the PTO shaft to the tractor, check for length as previously described in this manual.
4. Ensure shear-bolt safety device is fitted on the machine PTO shaft and not the tractor PTO, as shown on the PTO shaft guarding.
5. Ensure PTO check chains are anchored to prevent PTO guarding from rotating.
6. Connect the hydraulic hoses to the appropriate connection.

Transport Position

1. Check machine is hitched to the tractor as described. Ensure the tractor parking brake is applied
2. Ensure rotors are not turning then transform the machine into transport position by hydraulic control
3. Lift the body clear from the ground with the tractor 3 point linkage
4. Lock in position with the transport locking pin.



Mowing Position

1. This MAJOR Topper is designed to operate at the rpm rate as indicated in the Product Specification section of this booklet. Always operate on level ground when connecting /disconnecting the implement. This will prevent dangerous movement.
2. Never allow anyone to stand between the tractor and the topper. Ensure the machine is hitched correctly to the tractor as previously described
3. Lower main cutting deck to the desired cutting height and lock the tractor lower link arms in position. The front mini skid acts as a bottom out skid only, with the weight of the machine held by the tractor linkage & the castor wheels.
4. Lower the wings into mowing position by hydraulic control & relocated the wing locks into flotation position.
5. Start up the tractor PTO at a low RPM.
6. Build up to operating speed, select a suitable forward gear & proceed to cut grass.



Operating the Machine/Mowing

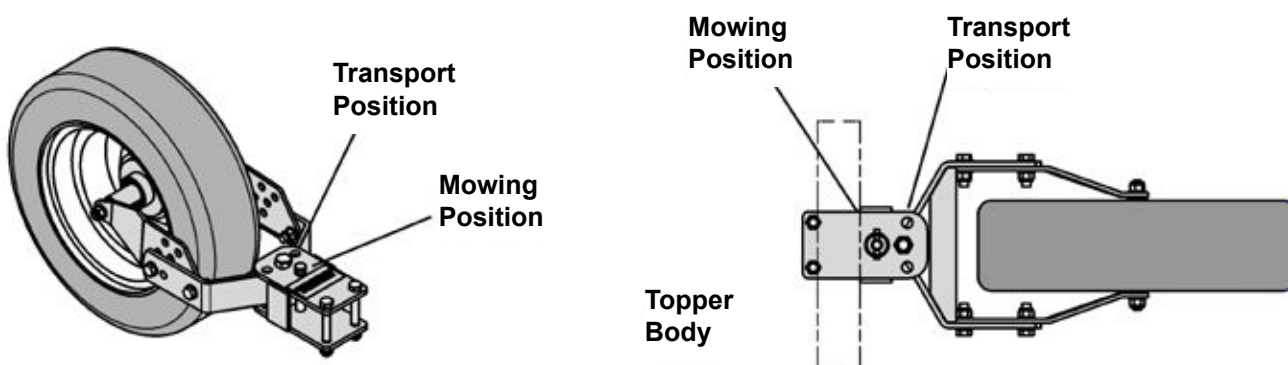


Never place limbs under the machine while rotors are turning. Rotors can remain turning for up to 1 minute after disengaging PTO. Ensure drawbar ram is fully extended before operating PTO. This MAJOR topper is designed to operate at RPM rate as stated in the Product Specification section of this booklet.

1. Ensure the machine is hitched correctly to the tractor as previously described.
2. Ensure bystanders are clear from the machine & cannot be hit with debris expelled from the machine.
3. Ensure cutting decks are lowered to the ground.
4. Start up the tractor PTO at a low RPM.
5. Build up to operating speed, select a suitable forward gear & proceed to cut grass.

Wheel Assembly

The wheel assembly is not suitable for reversing. Place the pin in the appropriate location for either transport or mowing.



Maintenance

The machine must always be disconnected from the tractor before any cleaning, lubricating and servicing operations can be carried out. Maintenance must be carried out by qualified personnel

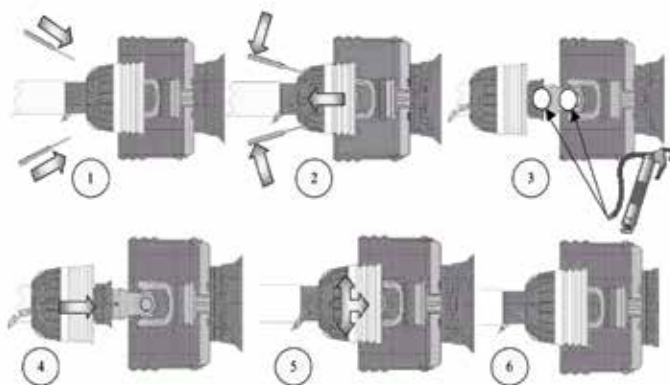
If emergency operations are required whilst the machine is connected to the tractor, switch off the engine, engage the parking brake and disengage the PTO.

Good, regular maintenance and correct use are if the topper is to remain safe and long lasting.

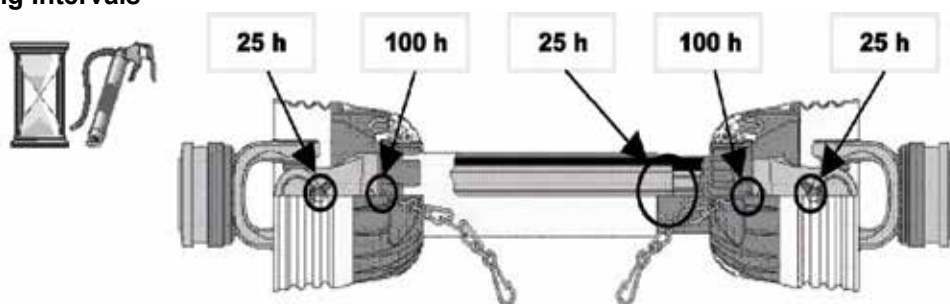
PTO Shaft Maintenance

Guard Removal and Yoke End Greasing

1. Prise back locking tabs
2. Pull back PTO Guard
3. Grease points as shown
4. Push Guard into position
5. Click into place
6. Tie check chain



PTO Guard Greasing Intervals



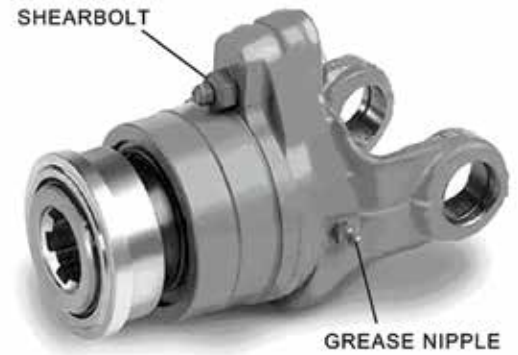
Shearbolt Replacement

1. Slide yoke shield back.
2. Drive out sheared bolt with hammer and punch.
3. Align holes and install new shear bolt. (Use only genuine MAJOR replacement shear bolts. M8X50 BZP -8.8)
4. Slide yoke shield securely in place

Fit PTO shaft with the shearbolt end connected to the Topper as directed on the PTO guarding.

All nuts and bolts in the transmission including Rubber couplings, Star Drives, PTO Shafts and Gearboxes should be checked for tightened after mowing at the following intervals.

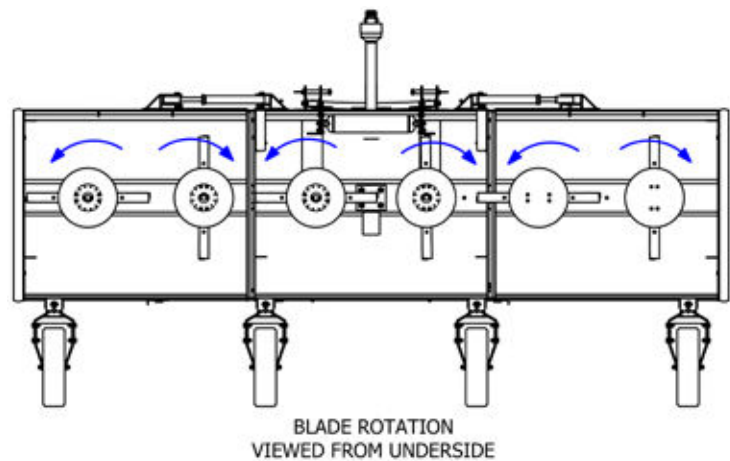
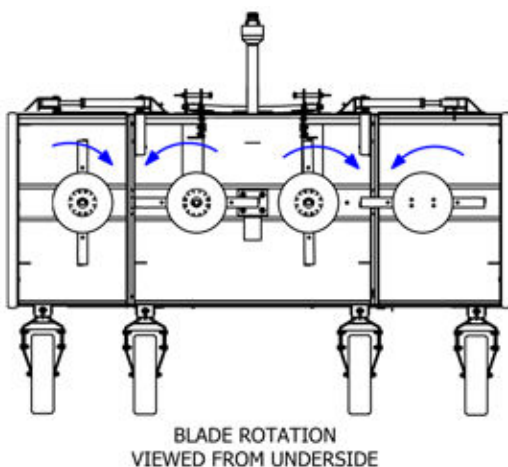
- 1st 50 Acres
- 1st 100 Acres
- 1st 250 Acres
- And every 250 acres thereafter.



Blade Rotation

NOTE: ENSURE BLADE ROTATION AND TIMING IS CORRECT AFTER SERVICING TRANSMISSION.

Blades must always be timed at 90o to each other. Failure to do so can cause the blades to foul & in turn may damage the transmission.



Maintenance Schedule

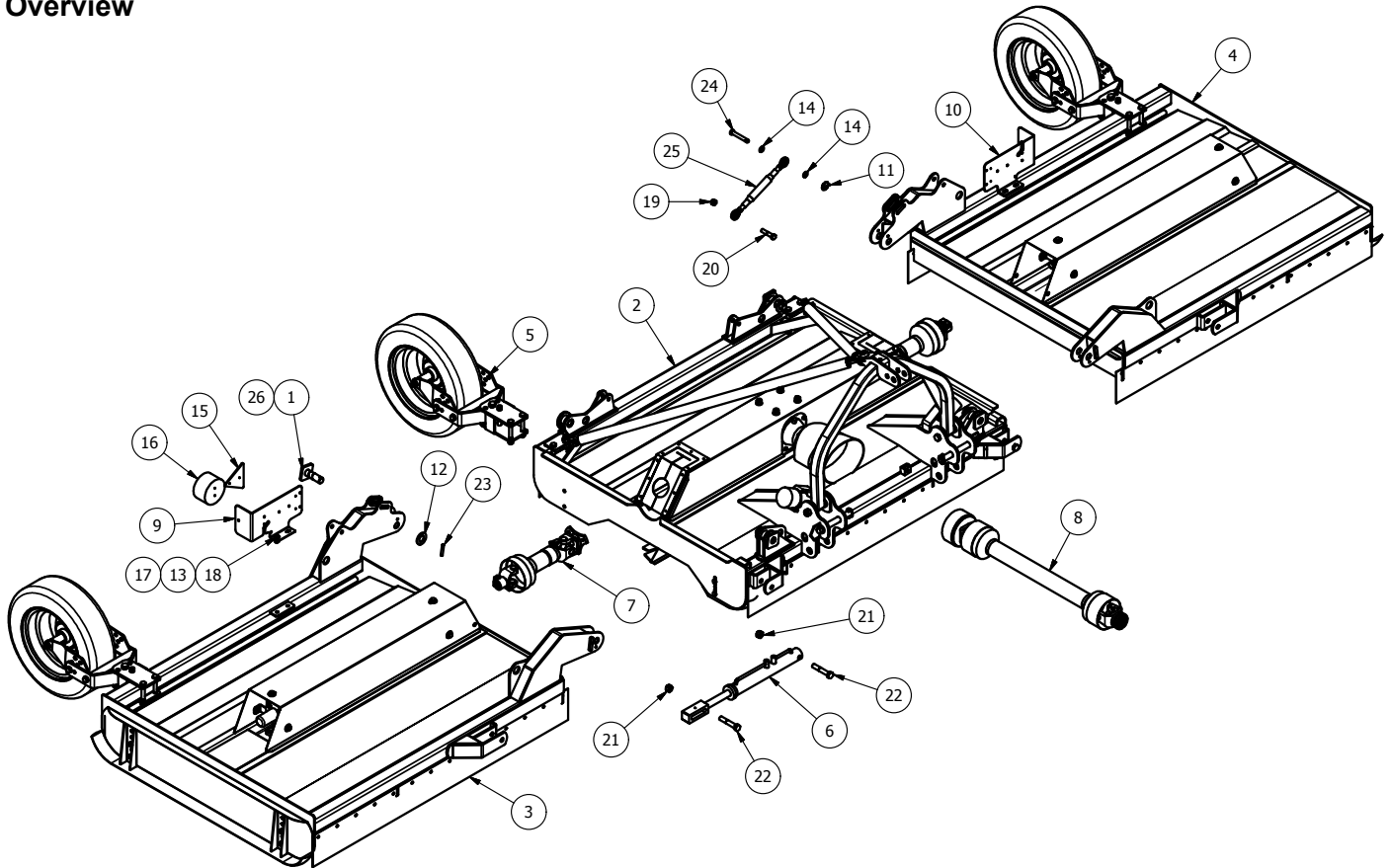
| | INITIALLY | 8 HOURS |
|-------------------------|-----------|---------|
| PTO Shaft Yoke Ends (8) | ● | ● |
| Wing pivot (4) | ● | ● |
| Castor wheel pivots | ● | ● |

Trouble Shooting

| Fault | Cause | Remedy | |
|---|--|---|--|
| Leaves a streak of uncut or partially cut grass | Blades dull or bent | Replace blades | |
| | Carrier RPM too low | Use correct PTO speed | |
| | Field conditions are so wet that the tractor tyre is pushing grass into mud | Too wet to mow. Stop operation and wait until it is drier | |
| | Ground speed too fast | Reduce ground speed by shifting to a lower gear | |
| | Possible build-up materials under mower | Clean mower | |
| | Blades mounted incorrectly (cutting edge against direction rotation) | Change blades so that cutting edge is facing correct rotation. | |
| Material discharges from mower unevenly; bunches of material along with swath | Material too high and too much material | Reduce ground speed but maintain 1000rpm at tractor PTO or make two passes over material. Raise mower for the first pass and lower to desired height for the second and cut a 90 degree angle to first pass | |
| Gearbox overheating | Low on lubricant | Fill to proper level | |
| | Improper type lubricant | Replace with proper lubricant | |
| | Excessive grass / debris build-up around gearbox | Remove grass, etc from machine | |
| Blade is scalping ground | Mower too low | Raise mower-reset wheels | |
| | Field is ridged | Cut field at a different angle | |
| | Field is too wet | Stop and wait until it is dried | |
| Mower will not cut. | Shear bolt sheared | Install new shear bolt | |
| Blades wear too fast | Cutting in sandy conditions | Increase cutting height | |
| | Cutting in rocky conditions | Increase cutting height | |
| | Blades hitting ground | Increase cutting height | |
| Mower seems to require excessive power | Advancing into grass too rapidly | Reduce forward travel speed | |
| | Hitting ground | Raise mower and reset wheels | |
| | Worn or dull blades | Sharpen or replace blades | |
| | Tractor not large enough | Use larger horsepower tractor | |
| Excessive vibration | Check gearbox bolts | Tighten if loose | |
| | Check for loose nuts on blades | Tighten if loose | |
| | Blade broken | Replace blades, in set | |
| | New blade or bolts matched with worn blade or bolts | Replace blades or bolts in sets | |
| | Drivelines not phased correctly. Implement and tractor yokes must be in line | Phase the driveline. Replace if necessary | |
| Noisy machine | Worn bearing | Replace bearings | |
| | Low oil in gearbox | Check level and add oil | |
| | Loose Parts | Check all bolts are fully tightened | |
| | Wrong PTO rpm rate | Check PTO rate & adjust as necessary | |
| | Rotors bent / broken | Replace bent or missing blades | |
| | Bent PTO shaft | Check PTO shafts are aligned correctly | |
| | | Check output shaft on gearboxes are not bent | |
| Check driveline between gearboxes is aligned. | | | |
| Gearbox leaking | Damaged oil seal | Replace seal | |
| | Bent shaft | Replace oil seal and shaft | |
| | Shaft rough in oil seal area | Replace or repair shaft | |
| | Oil seal installed incorrectly | Replace seal | |
| | Oil seal not sealing in the housing | Replace seal or use a sealant on outside diameter of seal | |
| | Oil level too high | Drain oil to proper level | |
| | Hole in gearbox | Replace the gearbox | |
| | Gasket damaged | Replace gasket | |
| | Bolts loose | Tighten bolts | |

Spare Parts - Flex Wing HR16909+

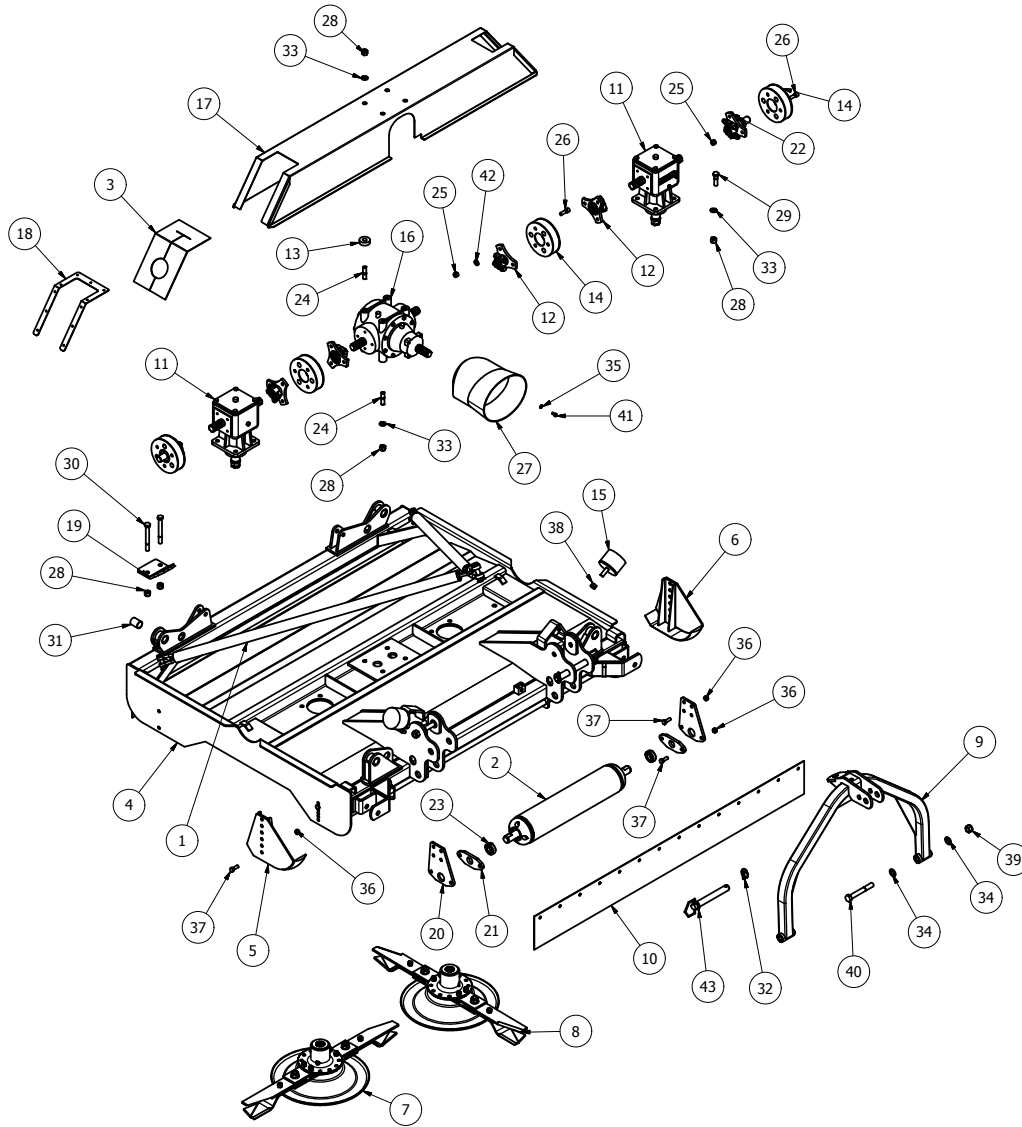
Flex Wing Grass Topper Spare Parts Overview



| Item | Part No | Description | Qty |
|------|-----------------|------------------------|-----|
| 1 | 12W-PIN07 | PIVOT PIN | 4 |
| 2 | 12W3-BGA | 12W3 BODY ASSY | 1 |
| 3 | 18W3-WGA | 18W3 WING ASSY RH | 1 |
| 4 | 18W3-WGAH | 18W3 WING ASSY LH | 1 |
| 5 | TWA-002 | TOPPER CAR WHEEL ASSY | 4 |
| 6 | 17GM-WR4 | WING LIFT RAM | 2 |
| 7 | T50-12WA | 12000 WING PTO SHAFT | 2 |
| 8 | V600910ENC12RW6 | V60 FIXED SLIP CLUTCH | 1 |
| 9 | TA-LGPLITL | LGP LIGHT BRACKET (LH) | 1 |
| 10 | TA-LGPLITR | LGP LIGHT BRACKET (RH) | 1 |
| 11 | 37 | LINCH PIN DIA 6 | 2 |
| 12 | FW114 | DIA 1 1/4" FLAT WASHER | 4 |
| 13 | FWM12 | M12 FLAT WASHER | 4 |
| 14 | FWM16 | M16 FLAT WASHER | 4 |

| | | | |
|----|------------|-----------------------|---|
| 15 | LC2700 | TRIANGLE REFLECTOR | 2 |
| 16 | LC360 | LAMP | 2 |
| 17 | M12 | M12 NYLOC NUT | 4 |
| 18 | M12x30SZP | M12x30 SET BOLT | 4 |
| 19 | M16 | M16 NYLOC NUT | 2 |
| 20 | M16x75BZP | M16x75 BOLT | 2 |
| 21 | M20 | M20 NYLOC NUT | 4 |
| 22 | M20x110BZP | M20x110 BOLT | 4 |
| 23 | S1234 | ROLL PIN DIA 10x60 | 4 |
| 24 | S15501 | CAT 0 PIN DIA 16x97mm | 2 |
| 25 | S4419 | CAT 0 TOP LINK | 2 |
| 26 | S849 | GREASE NIPPLE M6 STR | 4 |

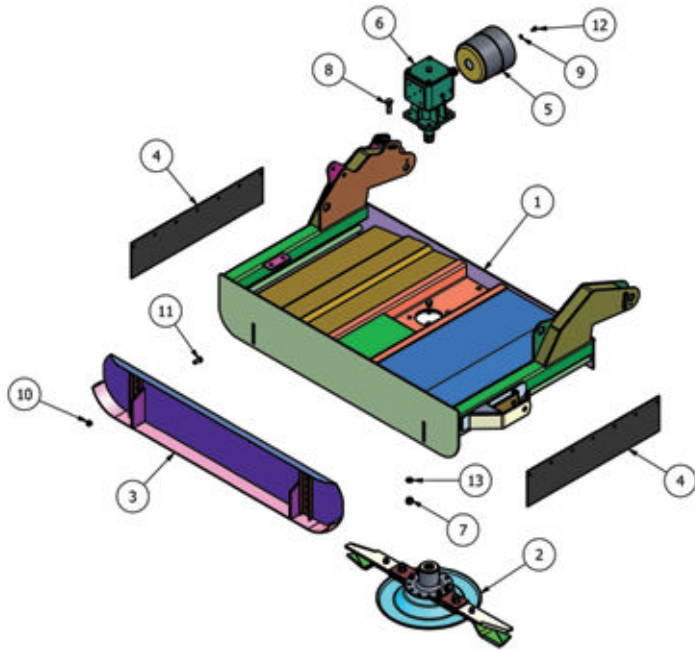
12000FW-HD and 18000FW-HD body assembly



| Item | Part No | Description | Qty |
|------|---------------|----------------------------------|-----|
| 1 | 123PL-STRAP01 | 12000 CHAIN SLING | 1 |
| 2 | 12GMROLW | 12000 WING ROLLER | 1 |
| 3 | 12GMTC1 | G/BOX RUBBER COVER END | 2 |
| 4 | 12W3-B001 | 1200/1800 3PL BODY | 1 |
| 5 | 12W3-SKD01 | MINI SKID (RH) | 1 |
| 6 | 12W3-SKD02 | MINI SKID (LH) | 1 |
| 7 | 951V2-D-BL | 951 BLADE (Anti_Clk) | 1 |
| 8 | 951V2-D-BR | 951 BLADE (Clk) | 1 |
| 9 | 123RMA01 | HEAVY A-FRAME | 1 |
| 10 | 12W3-G002 | SKIRT (BODY) | 2 |
| 11 | 347805 | 6 SPLINE 'T' BOX RATIO 1:1 | 2 |
| 12 | DRV-6S-52DC | 6 SPLINE 52mm DRIVE | 4 |
| 13 | GM12-A | GUARD MOUNT BUFFER | 4 |
| 14 | MJRC-113 | 113 PCD RUBBER COUPLING | 4 |
| 15 | MOT75 | DIA 100x75 BUFFER | 2 |
| 16 | T292005 | 90HP 6 SPLINE 'T' BOX RATIO 1.47 | 1 |
| 17 | 12GMTC-2 | 12000 BODY COVER | 1 |
| 18 | 12TC-E | G/BOX COVER END | 2 |
| 19 | 12W3-B020 | STRAP MOUNT | 2 |
| 20 | 12W3-B025 | ROLLER MOUNT | 2 |
| 21 | RM-RSN2 | ROLLER MOUNT | 2 |
| 22 | DRV-6S-135 | WING STAR DRIVE 6 SPL | 2 |
| 23 | RM-RSN3 | SHAFT COLLAR DIA 35 | 2 |

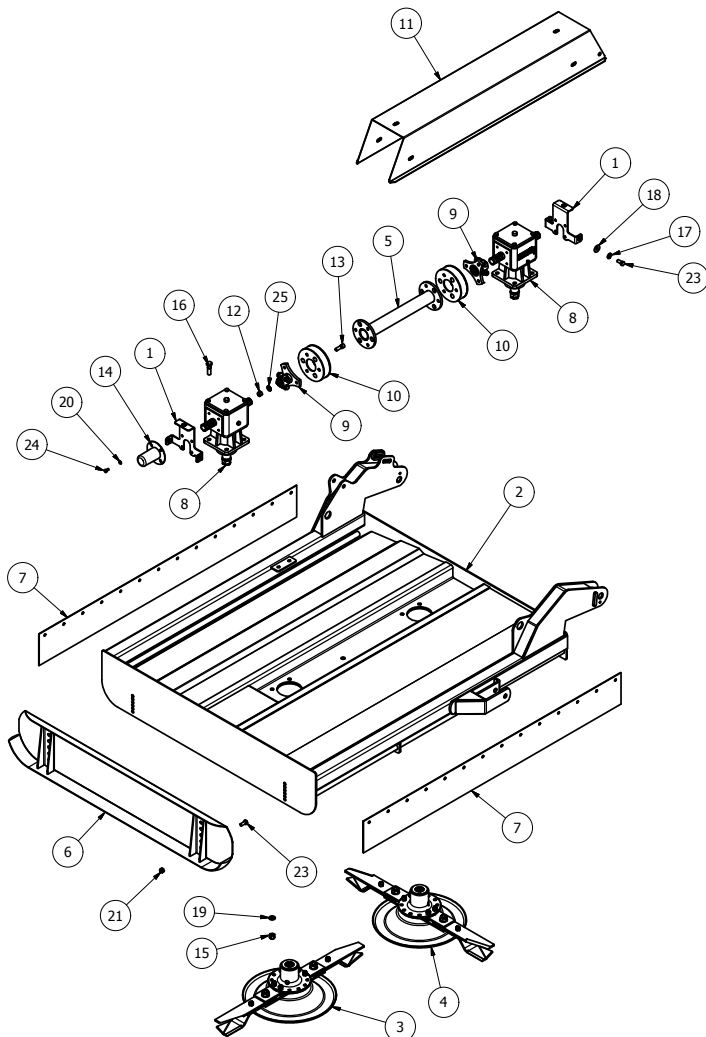
| | | | |
|----|-------------|-----------------------------------|----|
| 24 | T292A-S1 | T292 G/BOX STUD | 8 |
| 25 | 12HEX109 | 1/2F HEX 10.9 | 24 |
| 26 | 12x112FSKS | 1/2"x1 1/2" FINE SOCKET HEAD 12.9 | 24 |
| 27 | 190.000.545 | PTO GUARD (EXTENDED OVAL) | 1 |
| 28 | 5/8F | 5/8" FINE NYLOC NUT | 20 |
| 29 | 58x214FBZP | 5/8"x2 1/4" FINE BOLT | 8 |
| 30 | 58x512FBZP | 5/8"x5 1/2" FINE BOLT | 4 |
| 31 | 8SM14 | DIA 1 1/4" BUSHx1 3/4" | 4 |
| 32 | AN099/10 | LINCH PIN DIA 9.5 | 2 |
| 33 | FWM16 | M16 FLAT WASHER | 16 |
| 34 | FWM20 | M20 FLAT WASHER | 4 |
| 35 | FWM8 | M8 FLAT WASHER | 4 |
| 36 | M12 | M12 NYLOC NUT | 16 |
| 37 | M12x35BZP | M12x35 BOLT | 16 |
| 38 | M16 | M16 NYLOC NUT | 2 |
| 39 | M20 | M20 NYLOC NUT | 2 |
| 40 | M20x150BZP | M20x150 BOLT | 2 |
| 41 | M8x16SZP | M8x16 SET BOLT | 4 |
| 42 | NL12SP | M12 SP NORDLOCK | 24 |
| 43 | S412 | CAT II PIN DIA 28x190mm | 2 |

12000FW-HD wing



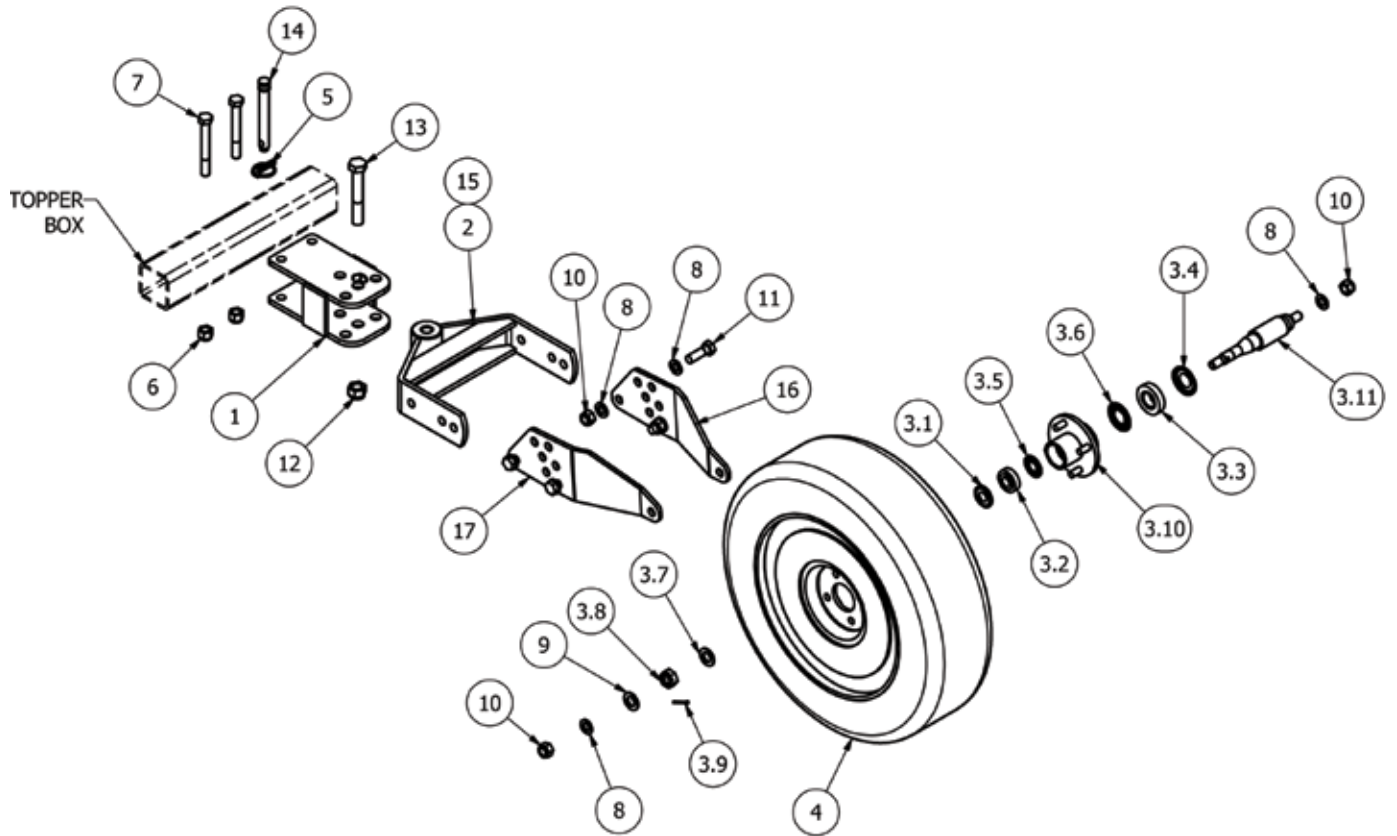
| Item | Part No | Description | Qty |
|------|------------|----------------------------|-----|
| 1 | 12W3-W001 | 12W3 WING | 1 |
| 2 | 951V2-D-BR | 951 BLADE (Cik) | 1 |
| 3 | SLH16AS | SKID (OFFSET) | 1 |
| 4 | 12W3-G003 | SKIRT (WING) | 2 |
| 5 | 190660-1 | GUARD (COVER 660/BASE 661) | 1 |
| 6 | 347805 | 6 SPLINE 'T' BOX RATIO 1:1 | 1 |
| 7 | 5/8F | 5/8" FINE NYLOC NUT | 4 |
| 8 | 58x2FBZP | 5/8"x2" FINE BOLT | 4 |
| 9 | FWM8 | M8 FLAT WASHER | 4 |
| 10 | M12 | M12 NYLOC NUT | 4 |
| 11 | M12x30SZP | M12x30 SET BOLT | 4 |
| 12 | M8x16SZP | M8x16 SET BOLT | 4 |
| 13 | SW58 | 5/8" SPRING WASHER | 4 |

18000FW-HD wing



| Item | Part No | Description | Qty |
|------|-------------|-----------------------------------|-----|
| 1 | 18GM-WCM-01 | GEARBOX COVER MOUNT | 2 |
| 2 | 18W3-W001 | 18W3 WING | 1 |
| 3 | 951V2-D-BL | 951 BLADE (Anti_Cik) | 1 |
| 4 | 951V2-D-BR | 951 BLADE (Cik) | 1 |
| 5 | DRV-RC-472 | 18000 WING DRIVE TUBE | 1 |
| 6 | SLH16AS | SKID (OFFSET) | 1 |
| 7 | 12W3-G002 | SKIRT (BODY) | 2 |
| 8 | 347805 | 6 SPLINE 'T' BOX RATIO 1:1 | 2 |
| 9 | 8SM-18 | 6 SPLINE STAR DRIVE | 2 |
| 10 | MJRC-113 | 113 PCD RUBBER COUPLING | 2 |
| 11 | 18GM-WTC2 | 18000 WING COVER | 1 |
| 12 | 12HEX109 | 1/2F HEX 10.9 | 12 |
| 13 | 12x112FSKS | 1/2"x1 1/2" FINE SOCKET HEAD 12.9 | 12 |
| 14 | 190592 | PTO HAT | 1 |
| 15 | 5/8F | 5/8" FINE NYLOC NUT | 8 |
| 16 | 58x214FBZP | 5/8"x2 1/4" FINE BOLT | 8 |
| 17 | D281215 | DISC SPRING 28x12x1.5 | 6 |
| 18 | FWM12L | M12 FLAT WASHER (LARGE) | 6 |
| 19 | FWM16 | M16 FLAT WASHER | 8 |
| 20 | FWM8 | M8 FLAT WASHER | 4 |
| 21 | M12 | M12 NYLOC NUT | 4 |
| 22 | M12x20SZP | M12x20 SET BOLT | 4 |
| 23 | M12x30SZP | M12x30 SET BOLT | 6 |
| 24 | M8x16SZP | M8x16 SET BOLT | 6 |
| 25 | NL12SP | M12 SP NORDLOCK | 12 |

Castor wheel

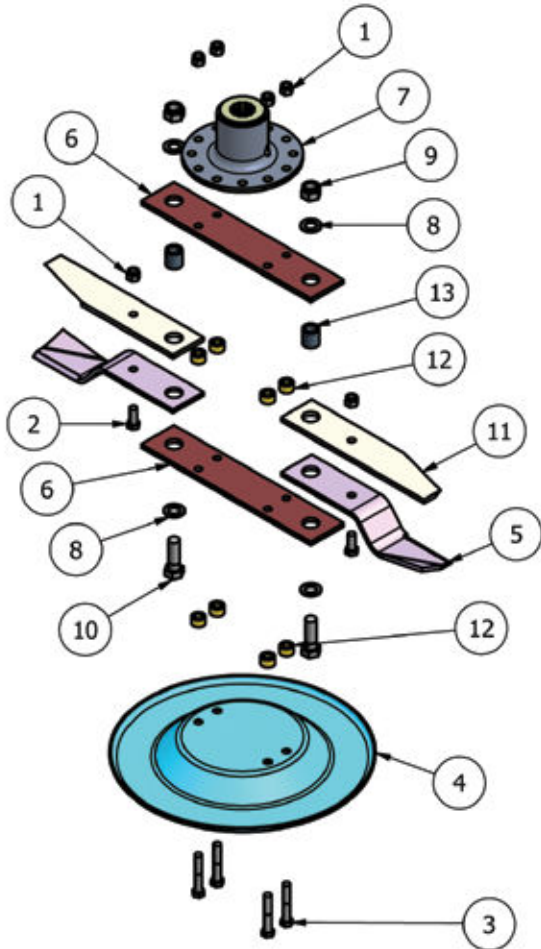


| Item | Part No | Description | Qty |
|------|------------|------------------------|-----|
| 1 | TWA-020 | PIVOT MOUNT | 1 |
| 2 | TWA-030 | PIVOT ARM | 1 |
| 3.1 | 30204AV | NILOS RING 47x20 | 1 |
| 3.2 | 30204CPT | TAPER BRG 47x20x15.25 | 1 |
| 3.3 | 30206CPT | TAPER BRG 62x30x17.25 | 1 |
| 3.4 | 30206AV | NILOS RING 62x30 | 1 |
| 3.5 | 915N30204 | SHEILD 47x20 | 1 |
| 3.6 | 915N30206 | SHEILD 62x30 | 1 |
| 3.7 | FWM20 | M20 FLAT WASHER | 1 |
| 3.8 | M20FCASLET | CASTLE NUT (THIN) | 1 |
| 3.9 | 1500 | SPLIT PIN 1/8"x1 1/2" | 1 |
| 3.10 | TWA-052 | TOPPER 4 STUD AXLE HUB | 1 |
| 3.11 | TWA-056 | HUB SHAFT FOR 17570R14 | 1 |
| 4 | 175X14W | 175 X 14" WHEELS | 1 |

| | | | |
|----|------------|---------------------------|----|
| 5 | 3546 | LINCH PIN DIA 9.5 | 1 |
| 6 | 5/8F | 5/8" FINE NYLOC NUT | 2 |
| 7 | 58x5FBZP | 5/8"x5" FINE BOLT | 2 |
| 8 | FWM16 | M16 FLAT WASHER | 10 |
| 9 | FWM20 | M20 FLAT WASHER | 1 |
| 10 | M16 | M16 NYLOC NUT | 6 |
| 11 | M16x50BZP | M16x50 BOLT | 4 |
| 12 | M20 | M20 NYLOC NUT | 1 |
| 13 | M20x130BZP | M20x130 BOLT | 1 |
| 14 | 77 | CAT 1 PIN DIA 19x127mm | 1 |
| 15 | 851 | GREASE NIPPLE M8x1.25 STR | 1 |
| 16 | TWA-045 | AXLE PLATE (CAR) | 1 |
| 17 | TWA-045H | AXLE PLATE (CAR) | 1 |

Blade Systems

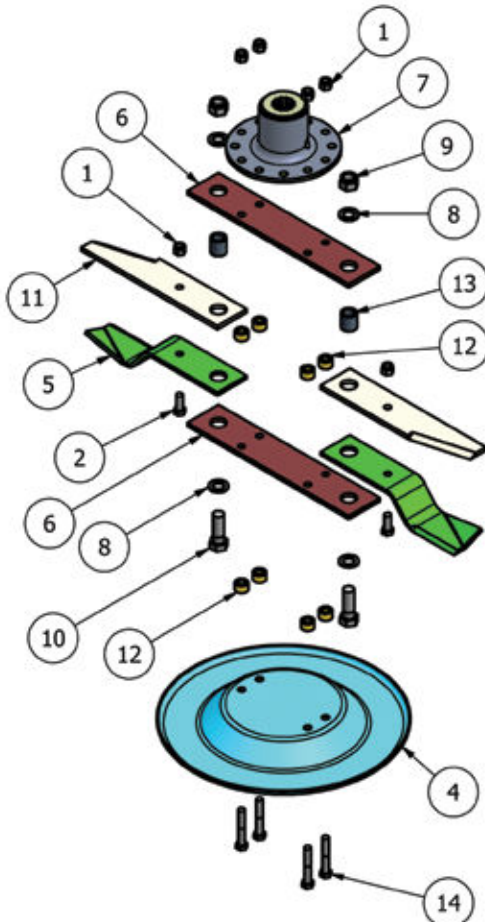
PRO-CUT BLADE SYSTEMS - 951V2-D-BL on all Flex Wing models from January 2011



| Item | Part No | Description | Qty |
|------|------------|------------------------|-----|
| 1 | 1/2F | 1/2" FINE NYLOC NUT | 6 |
| 2 | 12x114FBZP | 1/2"x1 1/4" FINE BOLT | 2 |
| 3 | 12x3FBZP | 1/2"x3" FINE BOLT | 4 |
| 4 | 9GT-USS | UNDER SOLE SKID | 1 |
| 5 | 9GTB/A | SWING BLADE (Anti-Clk) | 2 |
| 6 | BLDB-335 | BLADE BACK (335 CTR) | 2 |
| 7 | DF-BMP | J205 G/BOX BLADE MOUNT | 1 |
| 8 | FWM20 | M20 FLAT WASHER | 4 |
| 9 | M20 | M20 NYLOC NUT | 2 |
| 10 | M20x60BZP | M20x60 BOLT | 2 |
| 11 | NTSB12C | OVERLAP BLADE | 2 |
| 12 | 12T-BBS | BLADE BACK SPACER | 8 |
| 13 | 12T-LBB | OVERLAP BLADE BUSH | 2 |

| MACHINE | QTY |
|------------|-----------------------------------|
| 12000FW-HD | 2 clockwise 2 anti clockwise |
| 18000FW-HD | 3 clockwise, 3 anti clockwise) |

PRO-CUT BLADE SYSTEMS - 951V2-D-BR on all Flex Wing models from January 2011

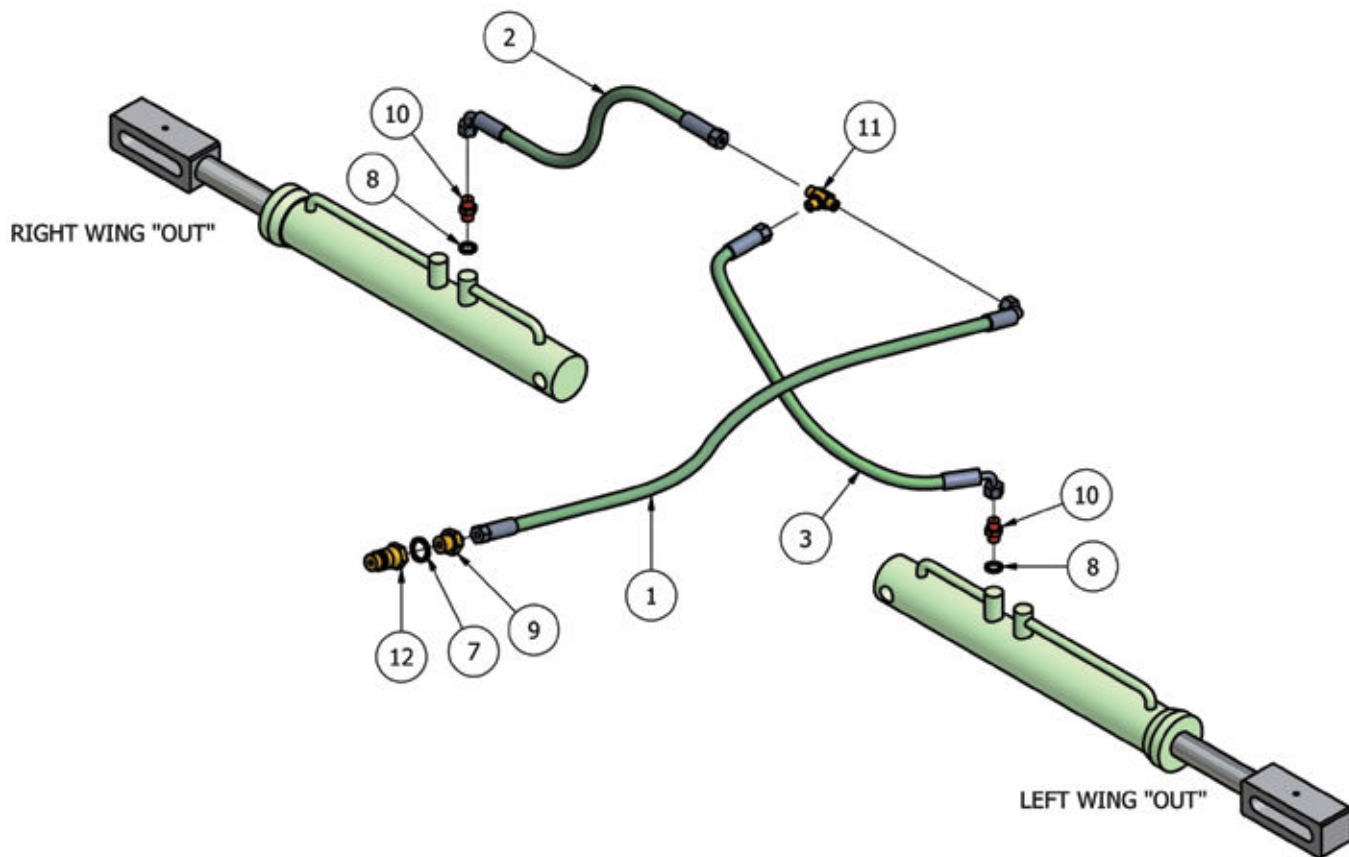


| Item | Part No | Description | Qty |
|------|------------|------------------------|-----|
| 1 | 1/2F | 1/2" FINE NYLOC NUT | 6 |
| 2 | 12x114FBZP | 1/2"x1 1/4" FINE BOLT | 2 |
| 4 | 9GT-USS | UNDER SOLE SKID | 1 |
| 5 | 9GTB/C | SWING BLADE (Clk) | 2 |
| 6 | BLDB-335 | BLADE BACK (335 CTR) | 2 |
| 7 | DF-BMP | J205 G/BOX BLADE MOUNT | 1 |
| 8 | FWM20 | M20 FLAT WASHER | 4 |
| 9 | M20 | M20 NYLOC NUT | 2 |
| 10 | M20x60BZP | M20x60 BOLT | 2 |
| 11 | NTSB12C | OVERLAP BLADE | 2 |
| 12 | 12T-BBS | BLADE BACK SPACER | 8 |
| 13 | 12T-LBB | OVERLAP BLADE BUSH | 2 |
| 14 | 12x3FBZP | 1/2"x3" FINE BOLT | 4 |

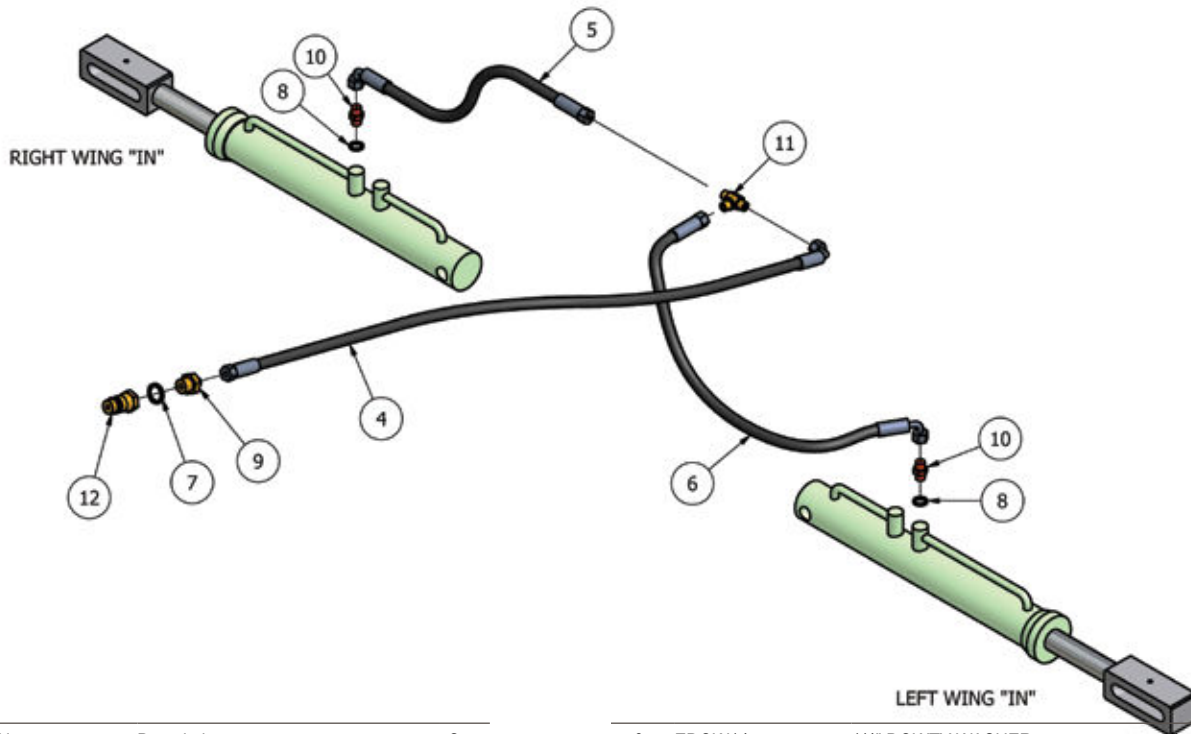
| MACHINE | QTY |
|------------|-----------------------------------|
| 12000FW-HD | 2 clockwise 2 anti clockwise |
| 18000FW-HD | 3 clockwise, 3 anti clockwise) |

Flex Wing Hydraulics

Wing Ram 'Open' Hose Detail



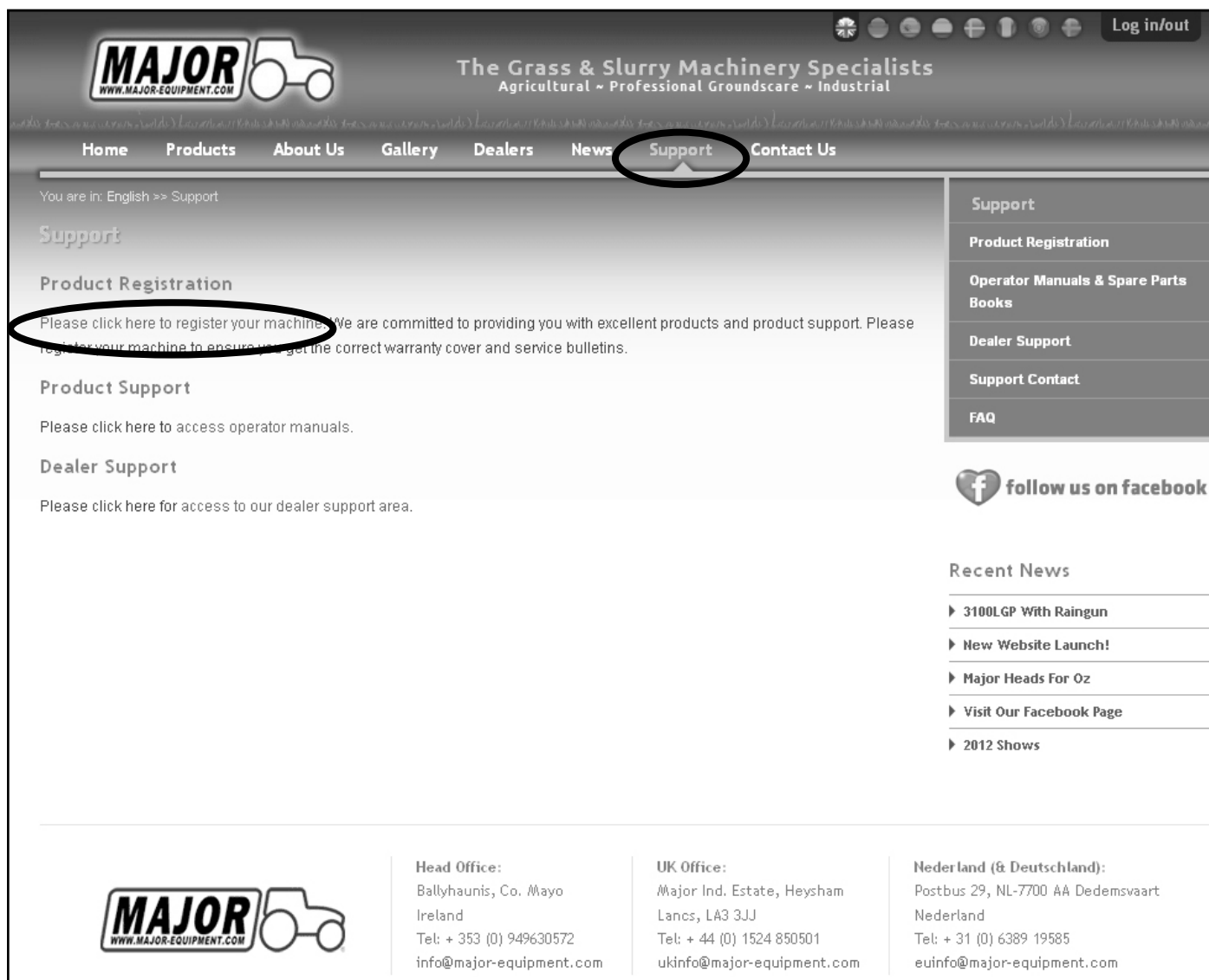
Wing Ram 'Closed' Hose Detail



| Item | Part No | Description | Qty |
|------|--------------|-----------------------------|-----|
| 1 | 123RM-HOSE-A | 1/4"x1800mm Str to Block 90 | 1 |
| 2 | 123RM-HOSE-B | 1/4"x1345mm Str to Block 90 | 1 |
| 3 | 123RM-HOSE-C | 1/4"x1020mm Str to Block 90 | 1 |
| 4 | 123RM-HOSE-D | 1/4"x1800mm Str to Block 90 | 1 |
| 5 | 123RM-HOSE-E | 1/4"x1420mm Str to Block 90 | 1 |
| 6 | 123RM-HOSE-F | 1/4"x1020mm Str to Block 90 | 1 |
| 7 | EDOW12 | 1/2" DOWTY WASHER | 2 |

| | | | |
|----|---------|-------------------------------|---|
| 8 | EDOW14 | 1/4" DOWTY WASHER | 4 |
| 9 | EMM1214 | 1/2-14" M/M CONNECTOR | 2 |
| 10 | EMM14RV | 1/4" M/M RESTRICTOR (DIA 1mm) | 4 |
| 11 | EMMT14 | 1/4" M/M/M CONNECTOR | 2 |
| 12 | QRM12 | 1/2" QUICK RELEASE MALE | 2 |

Warranty: This machine is guaranteed for 12 months. No warranty is given where the machine is being used as a hire machine. Warranty is against faulty workmanship or parts, with the exception of components not of MAJOR'S manufacture or design, i.e. hydraulic components, universally jointed shafts, chains and tyres, etc., which are subject to the original manufacturers conditions. To register your machine for warranty, please go to the support section of our website www.major-equipment.com and enter your details.



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