Operator Manual & Parts List

MAJOR RANGE OF

GRASS TOPPERS

Models: 800SM-HD, 900SM-HD, 7FTGDX-HD, 9FTGDX-HD and 909HD

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Rev4-313

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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)

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declares in sole responsibility that the product:

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 : _____ Date 12/01/2012

Managing Director

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 Issues
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.

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.

We suggest that you record your machine details below:

Model No: _____

Serial No: _____

Date of Purchase: _____

Dealer Name: _____

Dealer Telephone: _____

Product Specifications

Model	9FTGDX-HD	909 HD	800SM-HD	900SM-HD
Overall Width	2.74m (8' 9")	2.91m (9' 5")	4.4m (14' 4")	4.5m (14' 7")
Cut Width	2.7m (9')	2.7m (9')	2.4m (8')	2.7m (9')
Transport Width	2.91m (9' 5")	2.91m (9' 5")	2.22m (7' 3")	2.22m (7' 3")
No. of Blades	8	8	8	8
No. of Rotors	2	2	2	2
Power (HP)	40 - 90	50 - 110	35 - 80	50 - 90
PTO rpm	540	1000	540	540
Blade Speed	111m/s	111m/s	100m/s	111m/s
Cutting Height	12-250mm	12-250mm	12-250mm	12-250mm
Weight	490kg (570kg with wheels)	560kg (640kg with wheels)	550kg	640kg
Gearbox Oil	EP 90	EP 90	EP 90	EP 90

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.

Safety

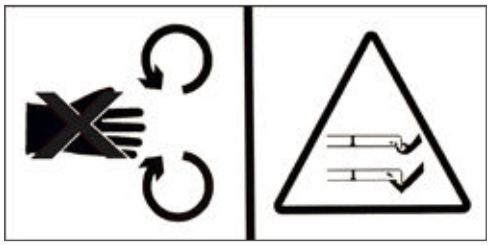
Machine Safety Labels

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



Rotating blade hazard

Moving parts hazard

Fold the PTO stand down before removing the transport pin to avoid PTO shaft damage

High oil pressure hazard

PTO entanglement hazard - keep clear of PTO drives.

Operating Safely

The MAJOR Topper is designed to operate at 540 RPM. Ensure tractor PTO output is set at 540 RPM. The MAJOR Topper must only be used for cutting grass. Moreover, it must only be used with a suitable tractor (see product specifications) and driven by an adequate drive-line by the tractor PTO. 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 ROTORS ARE TURNING. ROTORS CAN REMAIN TURNING FOR UP TO 1 MINUTE AFTER DISENGAGING PTO.

Workstation

The operator must remain seated while working the machine. When the wings need to be raised and lowered the operator must leave the tractor. Always ensure the PTO has been turned off and the parking brake applied before leaving the tractor cab. The operator must always apply the parking brake, and turn off the engine before leaving machine or carrying out maintenance.

NEVER OPERATE THE HYDRAULICS WITH THE TRACTOR SWITCHED OFF

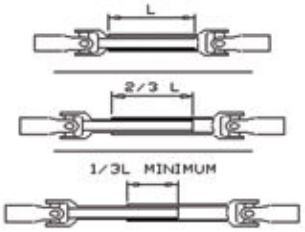
Regulations for use of the transmission

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

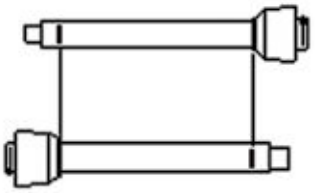
Ensure retaining chains are correctly anchored on all PTO shafts, preventing them form turning. Ensure drive line can turn easily within the shield. Keep spline grooves clean and greased so that PTO shaft can connect easily. Besides being described in this manual, the method by which the PTO shaft is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

PTO Shaft Safety



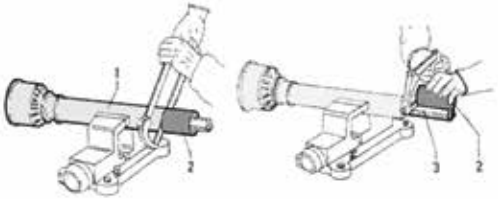
MAX PTO INPUT 540 R.P.M. Contact your nearest dealer or a specialised retail outlet if the PTO must be replaced with a longer one, since this must belong to the same power category and possess the same characteristics. An unsuitable PTO could easily break.

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 Topper 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:

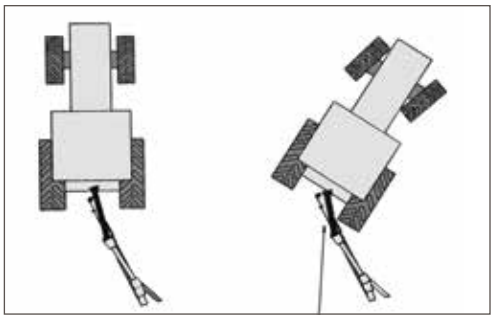
- Set the machine at a minimum distance from the tractor, then brake the tractor and switch off the engine.
- Separate the two halves of the PTO. Insert the female part into the tractor PTO and the male part into the Topper PTO, checking that the position is correct by means of the fixing pins.
- Line 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.

The shaft must not reach the end of the tube or project from this. Ensure the PTO does not bottom when turning



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 Mowers 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.

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.' Rotary mower 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
- When shear bolt protection device in PTO shaft shears & the rotors 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
Grass cutting 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 skirt or chain guard & the sides of the machine.

Bystanders or animals in the path of thrown objects could be seriously injured. Never operate machine with bystanders in the vicinity of the machine.

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 was measured 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 - 90 dBA. In a loaded condition & a PTO rate of 540 rpm the obtained value was 97dBA.

Hydraulic Hazard
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:

- Slippery footing on the ground
- 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

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.

Driving Safely on Public Roads

Check the local Highway Code regulations before driving the tractor on public highways with a towed implement. 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 19Km/Hr (12 MPH)

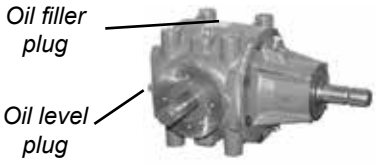
Operating the Machine

Inspections before Use

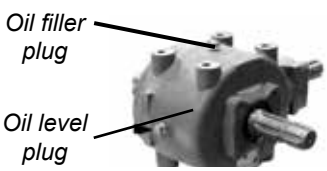
Always disengage PTO, Switch off tractor engine and engage the parking brake before making adjustment to the machine.

Primary Gearbox
800SM & 900SM

Primary Gearbox
909HD

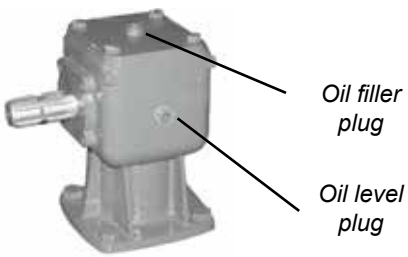


Primary Gearbox
9FTGDX



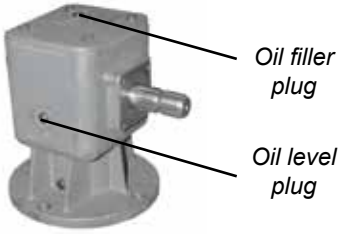
Rotor
Gearbox

9FTGDX
800SM
900SM

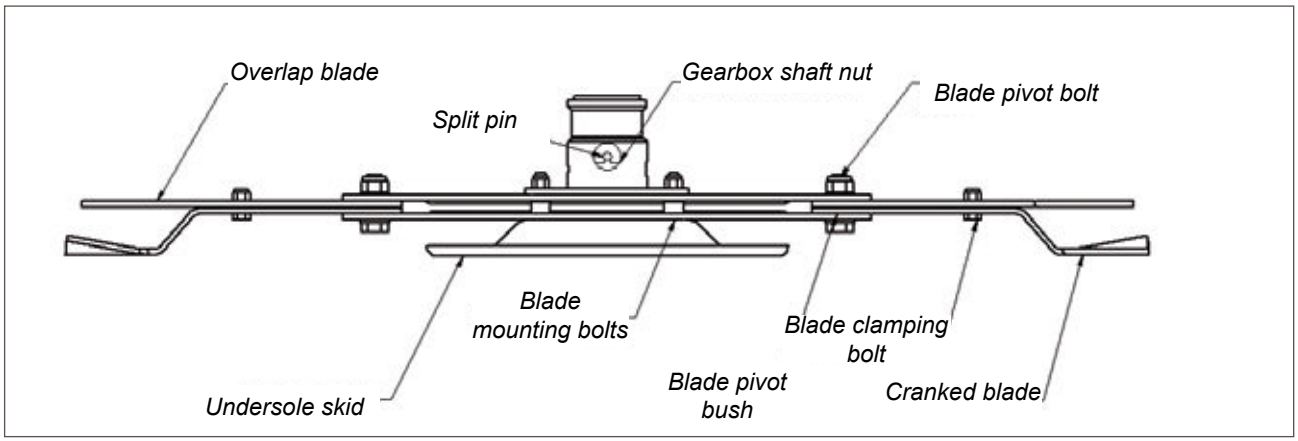


Rotor
Gearbox

909HD



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

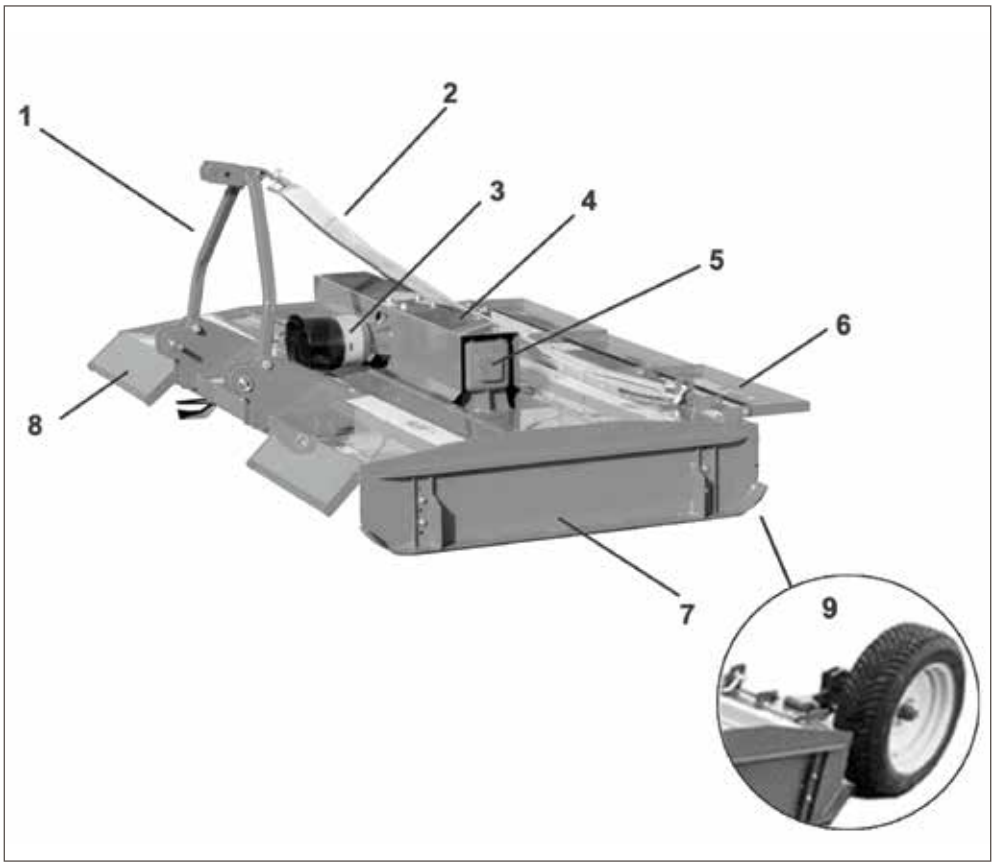


2. Grease the PTO shaft universal joints, drive shaft bearing and carrying arm pivots.
3. Re-sharpen old blades with a grindstone if necessary. Replace bent blades with new ones.
4. Check the blade mounting bolts are tight
5. Ensure the gearbox shaft nuts are tight and retained in place by split pin.
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.

Always ensure the PTO shaft yoke ends are locked onto the splined 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.

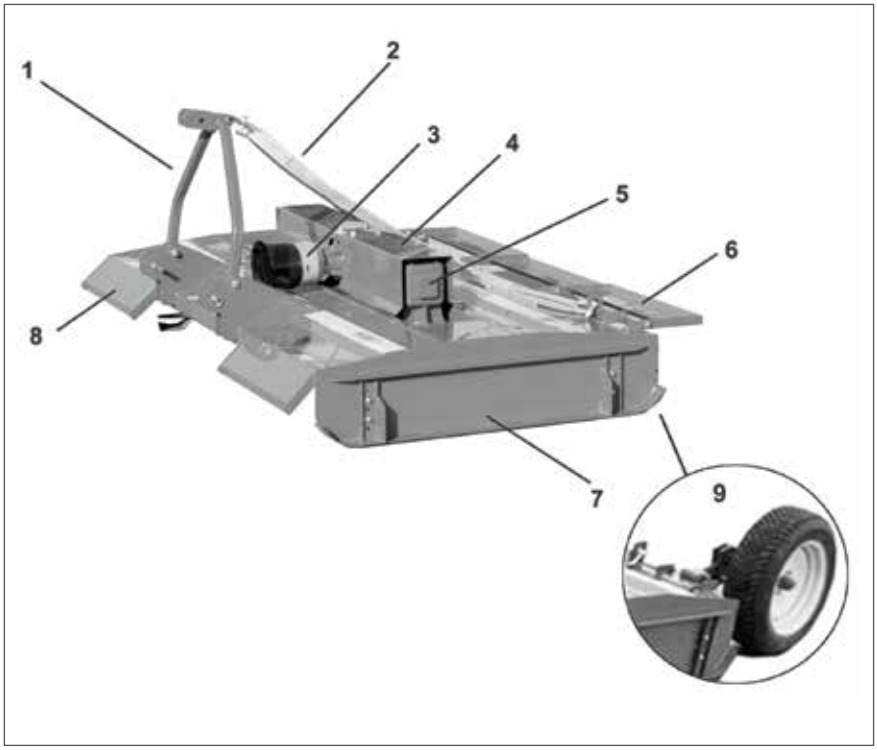
Key to Main Parts

9FTGDX and 909HD



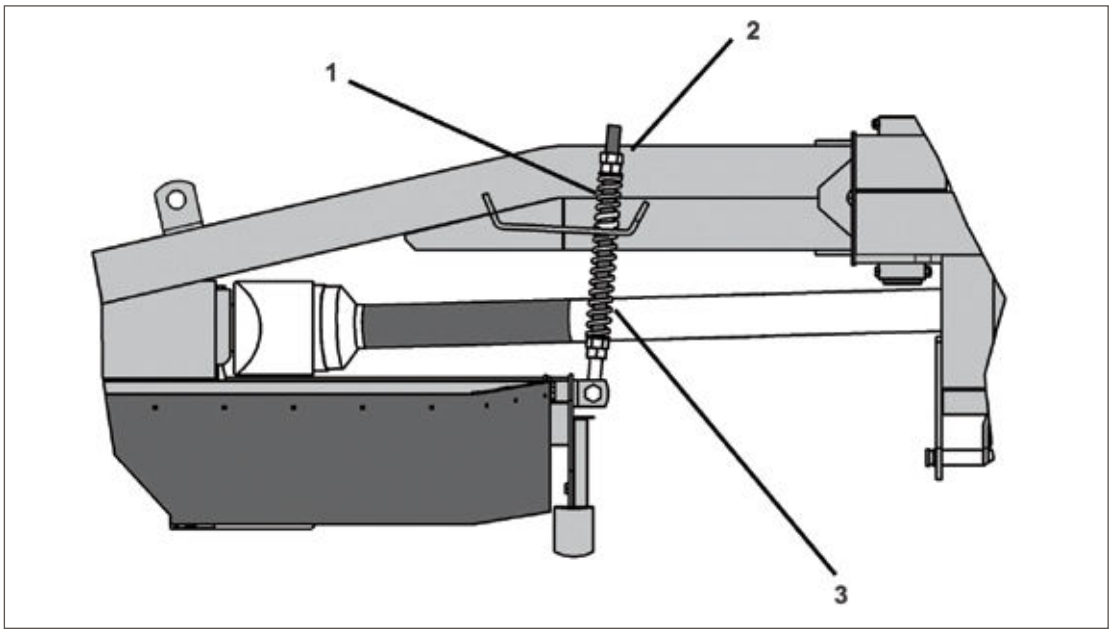
No	Name
1	A Frame
2	Strap
3	PTO guard
4	Gearbox cover
5	Rotor gearbox
6	Back guard
7	Skid
8	Front guard
9	Wheel option 909HD & 9FTGDX only (if ordering a wheel kit post sale, please contact MAJOR for fitting instructions)

800SM and 900SM



No	Name
1	Hydraulic ram
2	Float
3	Headstock
4	Transport locking pin (in transport)
5	Carrying arm
6	Gearbox cover
7	Rotor gearbox
8	Front guard
9	Skid
10	Rear guard
11	Secondary shaft
12	PTO guard
13	Transport locking pin (when mowing)
14	Hydraulic hoses
15	Skid
16	Long damper spring
17	Short damper spring

The Side Mount Topper is often supplied in kit form; please ensure that all components are fitted before using the machine. Ensure the damper system is correctly set up as shown below. Ensure primary PTO shaft is fitted correctly with the Shearbolt / Overrunning clutch fitted onto the primary gearbox of the machine and a standard yoke end on the tractor PTO drive.



No	Name
1	Short spring
2	Nyloc nut
3	Long spring

Starting Regulations

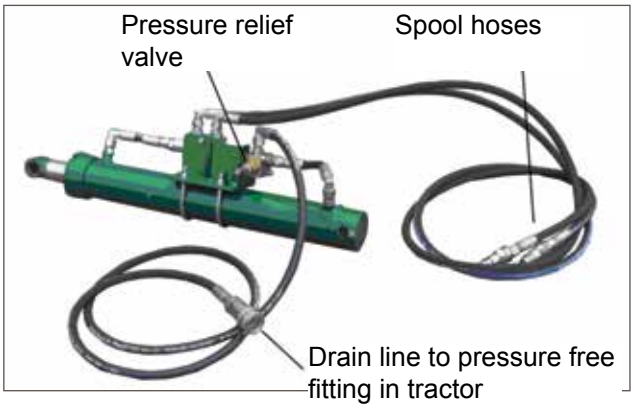
Always check that any imminently dangerous conditions have been eliminated before using the machine. Ensure all guarding is present & the operator is fully aware of the operations of the machine

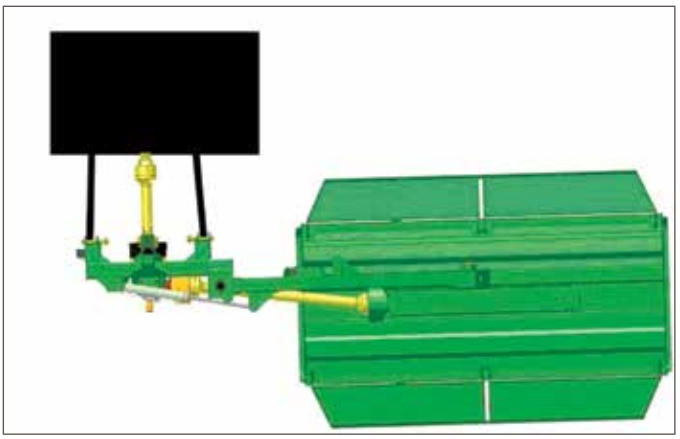
Always ensure the pins lock the PTO shaft yoke ends onto the spline shafts on both the tractor and the implement. An unlocked shaft could slip out of position, causing notable mechanical damage and serious injury to both operator and bystanders.

Machine Set up

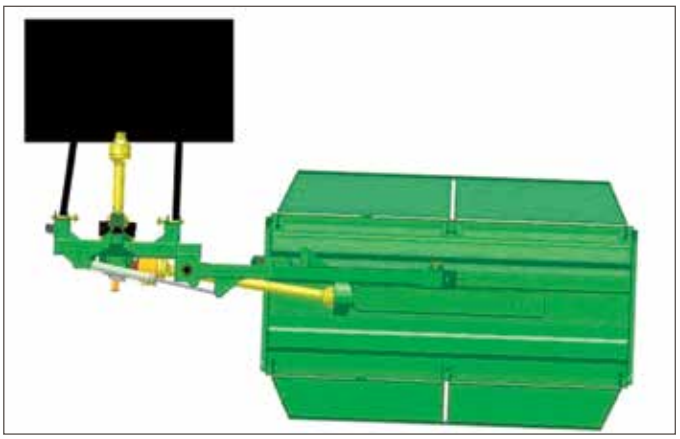
Hydraulic Ram Set Up Instructions (Side Mounted toppers)

1. Fit hydraulic quick fits to Tractor Spool
2. Fit Drain Line to pressure free return on tractor
3. Lift machine & power hydraulics to move body into mowing position.
4. Place spool in neutral position.
5. Tighten lower link stabilizer bars to ensure machine is tight on linkage & ensure that linkage bars are positioned to have machine slightly forward when in mowing position.
6. When mowing, the machine should be perpendicular or slightly forward to the direction of travel. If the machine is lagging behind the tractor then excessive pressure is being exerted on the valve & will cause the machine to creep back.





Correctly set up with stabilizers tightened up



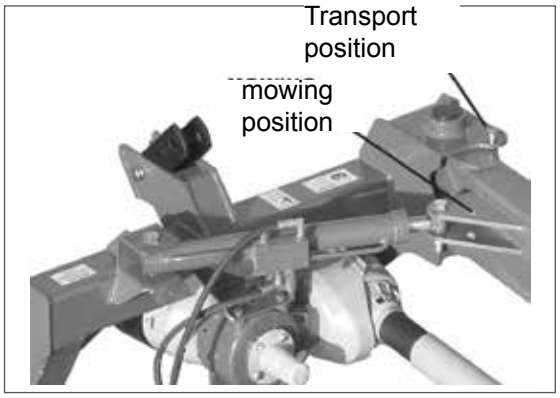
Incorrectly set up with loose stabilizers

Proceed to mow grass after machine has been set up as shown above. IMPORTANT!! . Mowing speed should never exceed 7 Kph.

Mowing over rough ground can cause pressure on the relief valve with the consequence of the valve to operate. It is suggested to mow at lower speeds over these undulations

Transport Postion - Side Mounted Topper

1. Check machine is hitched to the tractor as described. Ensure the tractor parking brake is applied
2. Lift the body clear from the ground with the tractor 3 point linkage
3. Transform the machine into transport position by hydraulic control.
4. Lock in position with the transport locking pin.

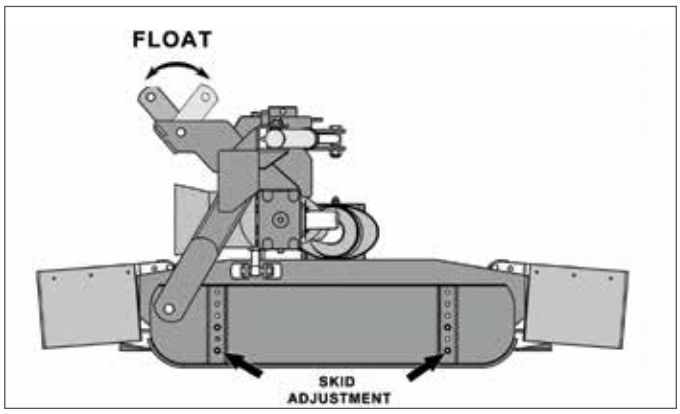


Hitching to the Tractor

ALL MACHINES:

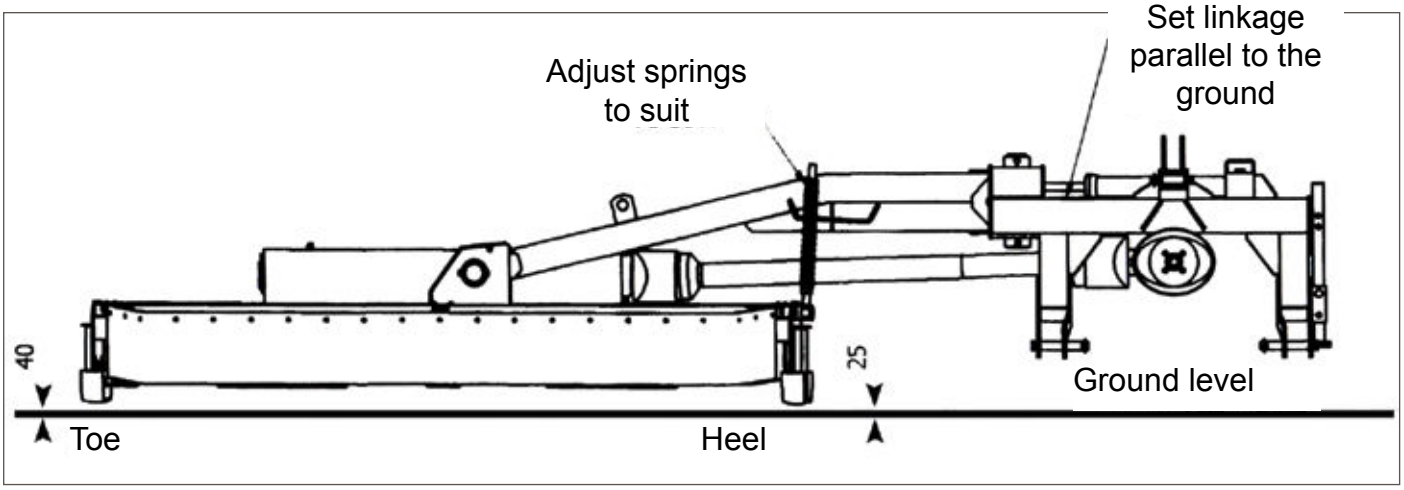
ALWAYS OPERATE ON LEVEL GROUND WHEN HITCHING/UNHITCHING THE IMPLEMENT. THIS WILL PREVENT DANGEROUS MOVEMENT. NEVER ALLOW ANYONE TO STAND BETWEEN THE TRACTOR AND THE TOPPER.

1. Reverse the tractor,
2. Ensure the tractor parking brake is applied.
3. Connect the machine to the tractor.
4. Before connecting the PTO shaft to the tractor, check for length as previously described in this manual.
5. Ensure shear-bolt safety device is fitted on the machine PTO shaft & not the tractor PTO, as shown on the PTO shaft guarding.
6. Ensure PTO check chains are anchored to prevent PTO guarding from rotating.
7. Connect the hydraulic hoses to the appropriate connection. (SIDE MOUNTED TOPPER ONLY)



SIDE MOUNTED TOPPERS

1. Connect tractor to linkage
2. With linkage set parallel to the ground raise the topper such that the topper “heel” is approx. 25mm from the ground. Adjust the springs such that the “toe” is slightly higher at approx. 40mm from the ground.
3. Adjust the tractor linkage stay bars such that the topper runs parallel to the tractor.
4. Flip back axle and drawbar ram stoppers.



Operating the Machine/Mowing

Mowing Postion - Side Mounted Toppers

1. Check machine is hitched to the tractor as described. Ensure the tractor parking brake is applied
2. Ensure the body is clear from the ground raising the tractor’s three point linkage.
3. Transform the machine into mowing position by hydraulic control.
4. Locate transport locking pin as shown previously

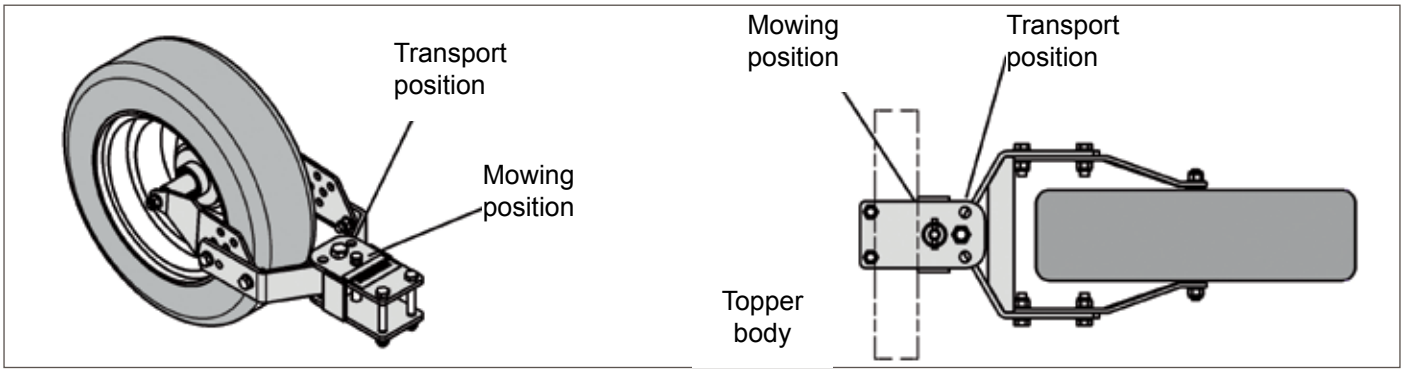
Never place limbs under the machine while rotors are turning. Rotors can remain turning for up to 1 minute after disengaging PTO

Mowing - All Models

1. The MAJOR Topper is designed to operate at a max 540 rpm. Always operate on level ground when connecting / unconnecting the implement. This will prevent dangerous movement.
2. Ensure bystanders are clear from the machine & cannot be hit with debris expelled from the machine.
3. Never allow anyone to stand between the tractor and the TOPPER Ensure the machine is hitched correctly to the tractor as previously described
4. Ensure cutting decks are lowered to the ground.
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.

9FTGDX – Wheel Assembly

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

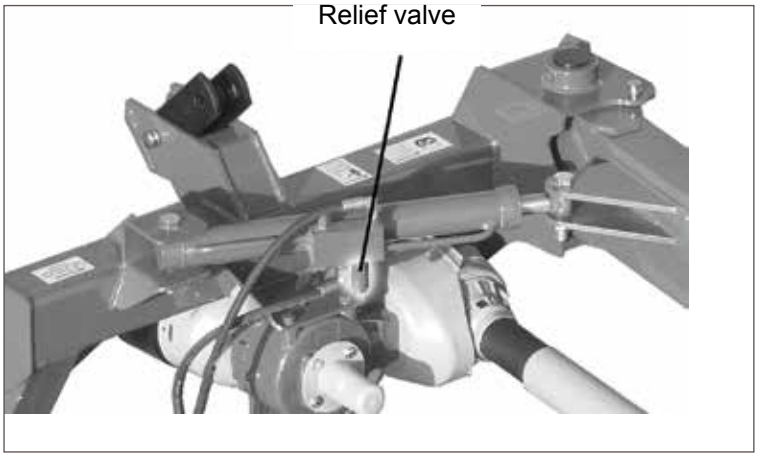


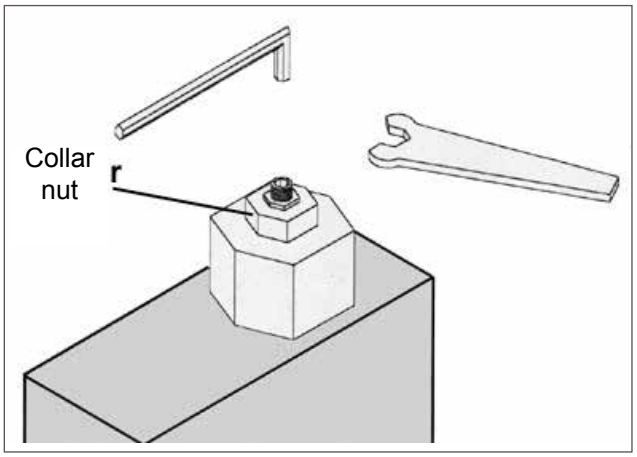
Adjusting the skids and cutting height

Adjust the skids by lifting the machine and removing the four skid retaining bolts & relocating the skid to the desired height.

Hydraulic Breakaway Adjustment

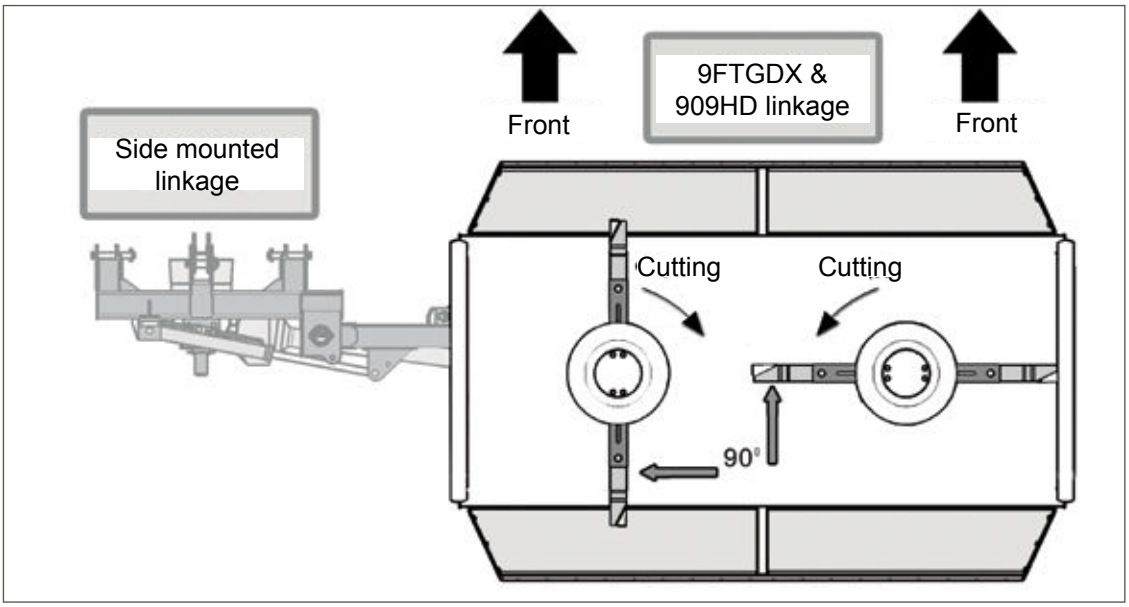
The relief valve is located as shown on the hydraulic ram.
1. Anchor the position of the Allen Screw using the Allen key
2. Slacken off the Collar Nut
3. Wind in the Allen Screw to increase the resistance (i.e. prevent the body from slipping back).
4. Lock the Allen Screw in the new position with the Collar Nut





Blade Rotations

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.



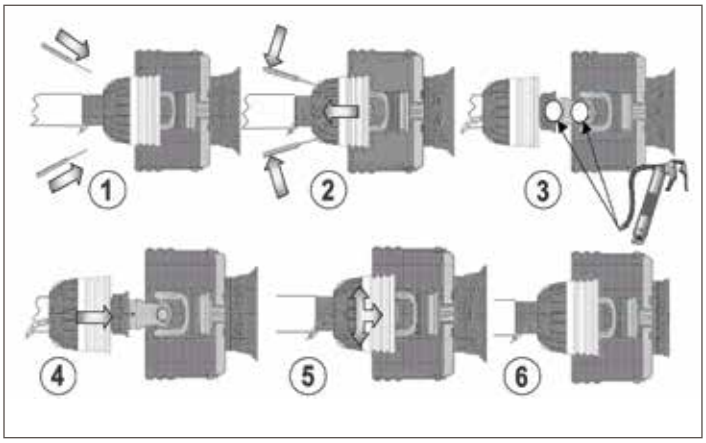
Maintenance

The Topper must always be disconnected form the tractor before any cleaning, lubricating and servicing operations can be carried out.

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.

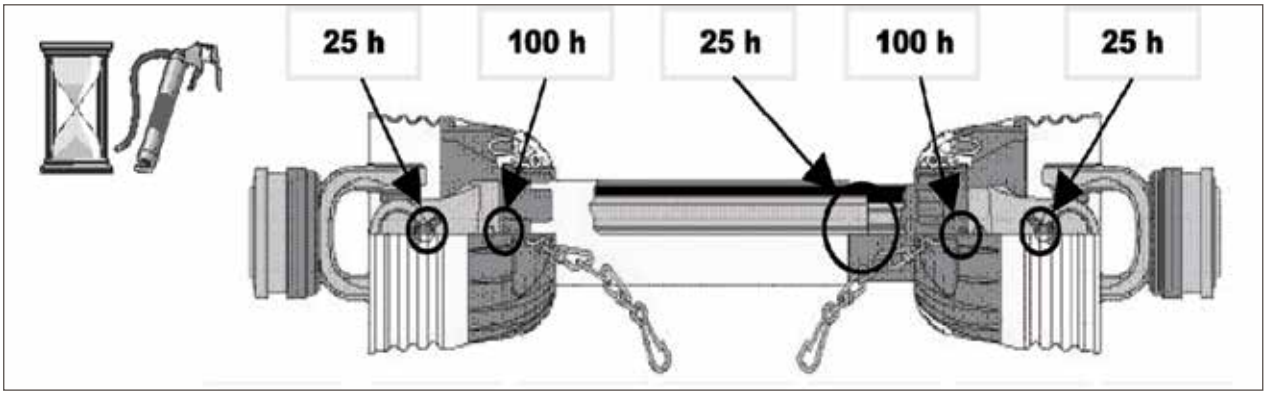
PTO Shaft Maintenance



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.
4. Slide yoke shield securely in place

IMPORTANT
Fit PTO shaft with the shearbolt end connected to the Topper as directed on the PTO guarding
Use only genuine MAJOR replacement shear bolts. M8X50 BZP -8.8

Maintenance Schedule

Grease the following:

	INITIALLY	8 HOURS
PTO shaft yoke ends	●	●
Carrying arm pivots	●	●

Lubricate moveable mechanical joints when required.

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.

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

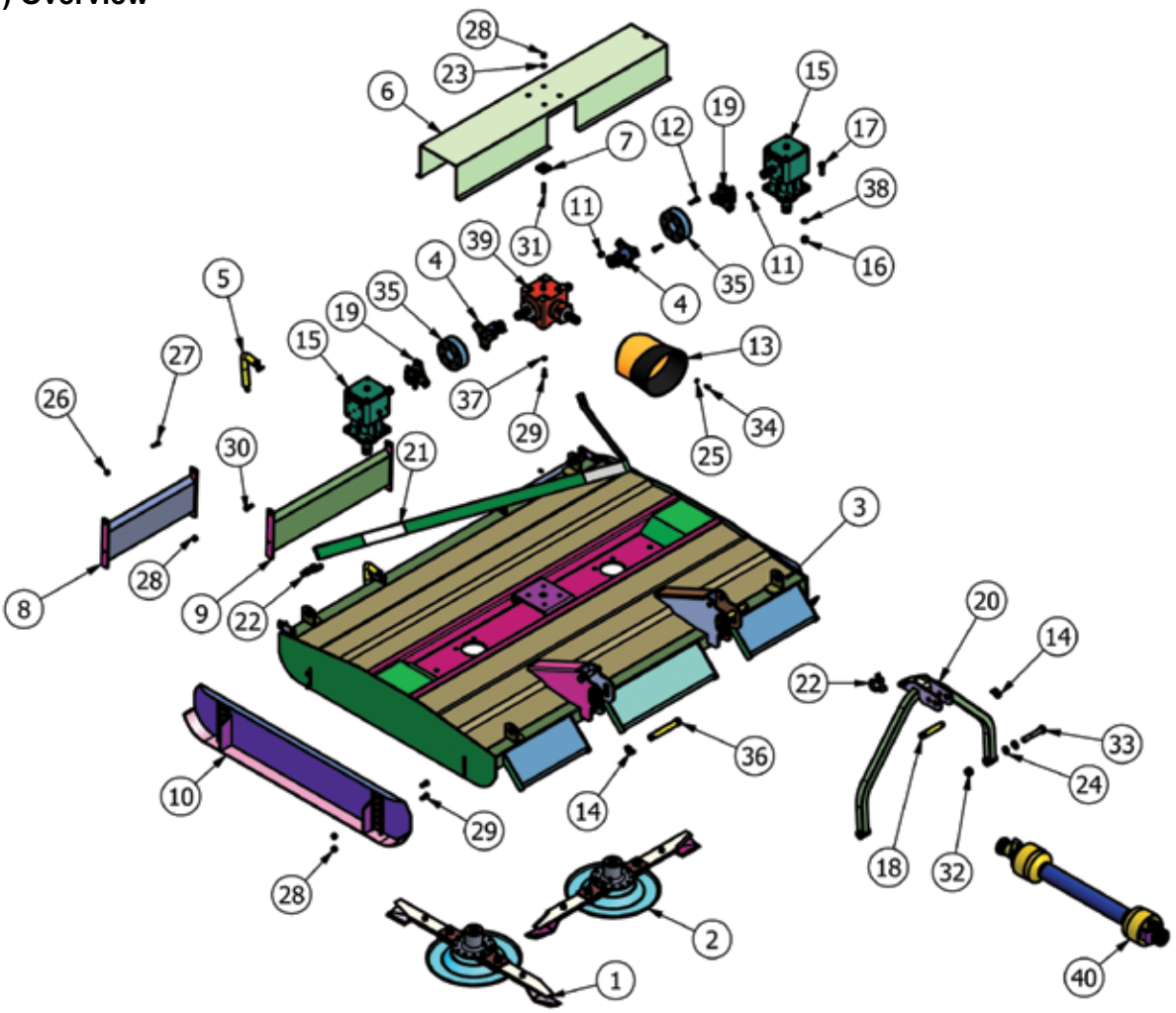
Trouble Shooting

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 tire 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
	Grass is down from previous weather conditions	Mow in only one direction
	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 540rpm 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
	Grass wet	Allow grass to dry before mowing. Slow ground speed of tractor but keep engine running at full PTO rpm.
Gearbox overheating	Low on lubricant or improper type lubricant	Fill to proper level or 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
	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 skids
	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
	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 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
Cutting deck swings behind tractor while cutting.	Advancing into grass too rapidly	Reduce forward speed
	Very heavy crop	Reduce forward speed and / or change cutting height
	Pressure relief valve is set too low	Adjust relief valve until cutting deck stops falling back

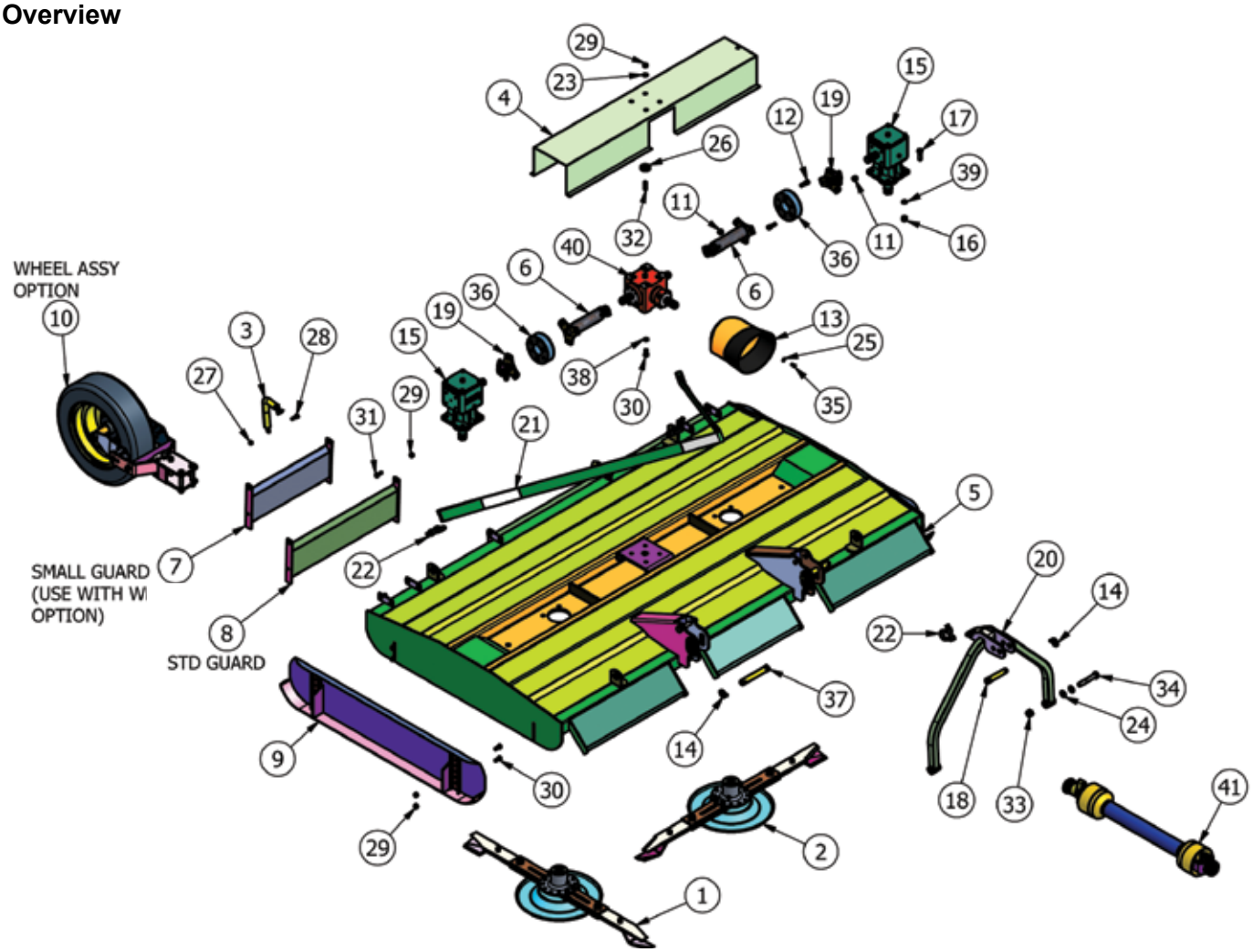
Spare Parts

7FTGDX-HD Grass Topper
(709HD) Overview



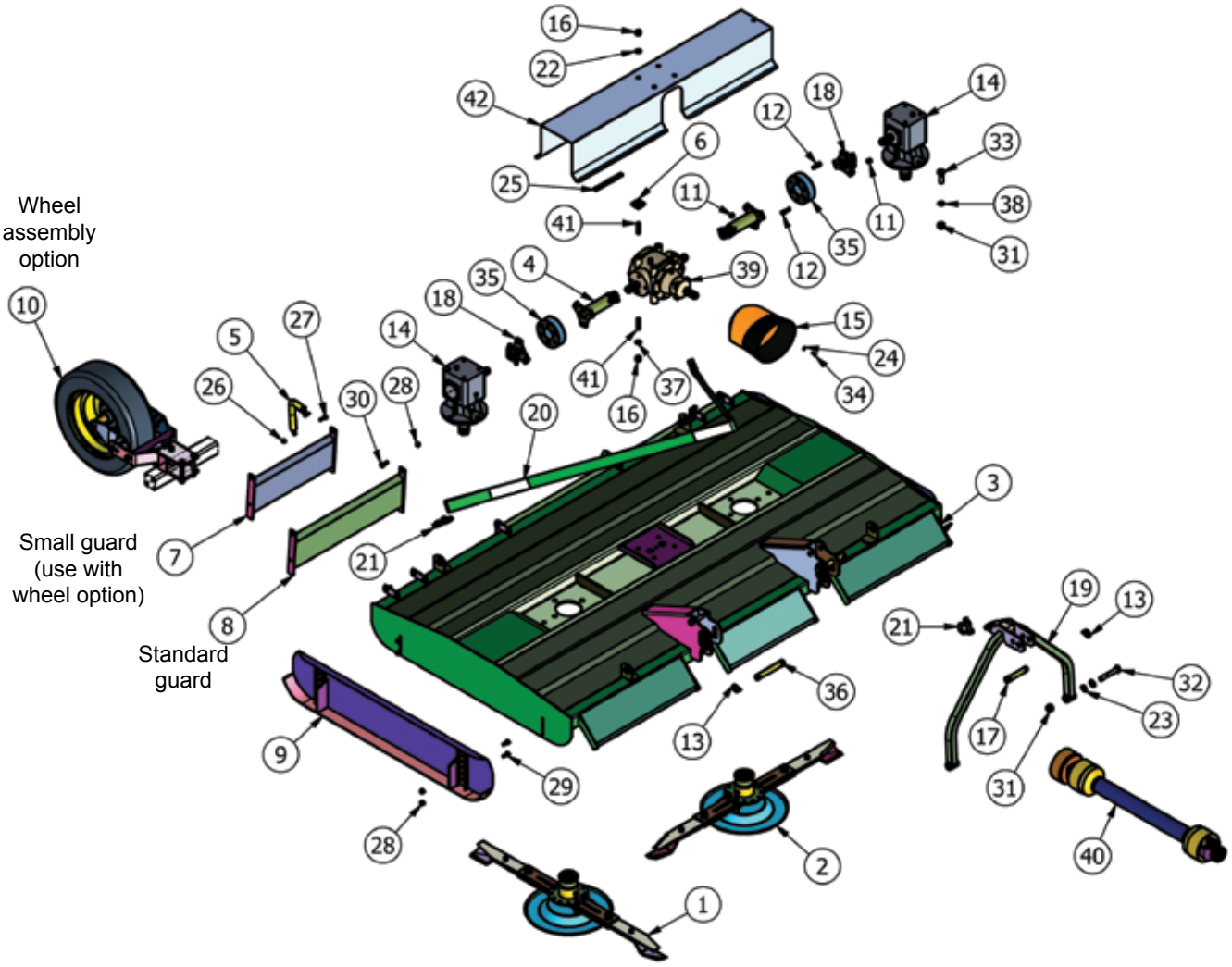
Item	Part No	Description	Qty
1	1125-D-BL	1125 BLADE (Anti_Clk)	1
2	1125-D-BR	11125 BLADE (Clk)	1
3	7GT-BD01	700M BODY FAB	1
4	7GTD	DRIVE TUBE (120mm)	2
5	909GT-GDC01	GUARD CHAIN ADJUSTER	2
6	9GT-COV	900M GEARBOX COVER	1
7	GM12-A	GUARD MOUNT BUFFER	4
8	SL45RG	405 REAR GUARD	2
9	SL65RG	REAR GUARD	1
10	SLH16AS	SKID (OFFSET)	2
11	1/2F	1/2" FINE NYLOC NUT	12
12	12x112FSKS	1/2"x1 1/2" FINE SOCKET HEAD 12.9	12
13	190.000.545	PTO GUARD (EXTENDED OVAL)	1
14	3546	LINCH PIN DIA 9.5	3
15	MJ40L	6 SPLINE "L" BOX RATIO 1.47	2
16	5/8F	5/8" FINE NYLOC NUT	8
17	58x2FBZP	5/8"x2" FINE BOLT	8
18	81	CAT 2 PIN DIA 25.4x110mm	1
19	8SM18	6 SPLINE STAR DRIVE	2
20	909-AF-01	909 A-FRAME 2011	1
21	9GTSTRP	900M STRAP (3226mm)	1
22	EW29A	5/8" "D" SHACKLE	3
23	FWM12	M12 FLAT WASHER	4
24	FWM20	M20 FLAT WASHER	4
25	FWM8	M8 FLAT WASHER	4
26	M10	M10 NYLOC NUT	2
27	M10x35SZP	M10x35 SET BOLT	2
28	M12	M12 NYLOC NUT	16
29	M12x30SZP	M12x30 SET BOLT	12
30	M12x35BZP	M12x35 BOLT	4
31	M12x50SB	M12x50mm STUD	4
32	M20	M20 NYLOC NUT	2
33	M20x120BZP	M20x120 BOLT	2
34	M8x16SZP	M8x16 SET BOLT	4
35	MJRC-113	113 PCD RUBBER COUPLING	2
36	112	CAT 2 PIN DIA 28.5x159mm	2
37	SW12	1/2" SPRING WASHER	4
38	SW58	5/8" SPRING WASHER	8
39	T27A267245	6 SPLINE "T" BOX RATIO 1.92	1
40	T600810ENC12RB2	T60 SHEAR BOLT O/R	1

9FTGDX-HD Grass Topper
Overview



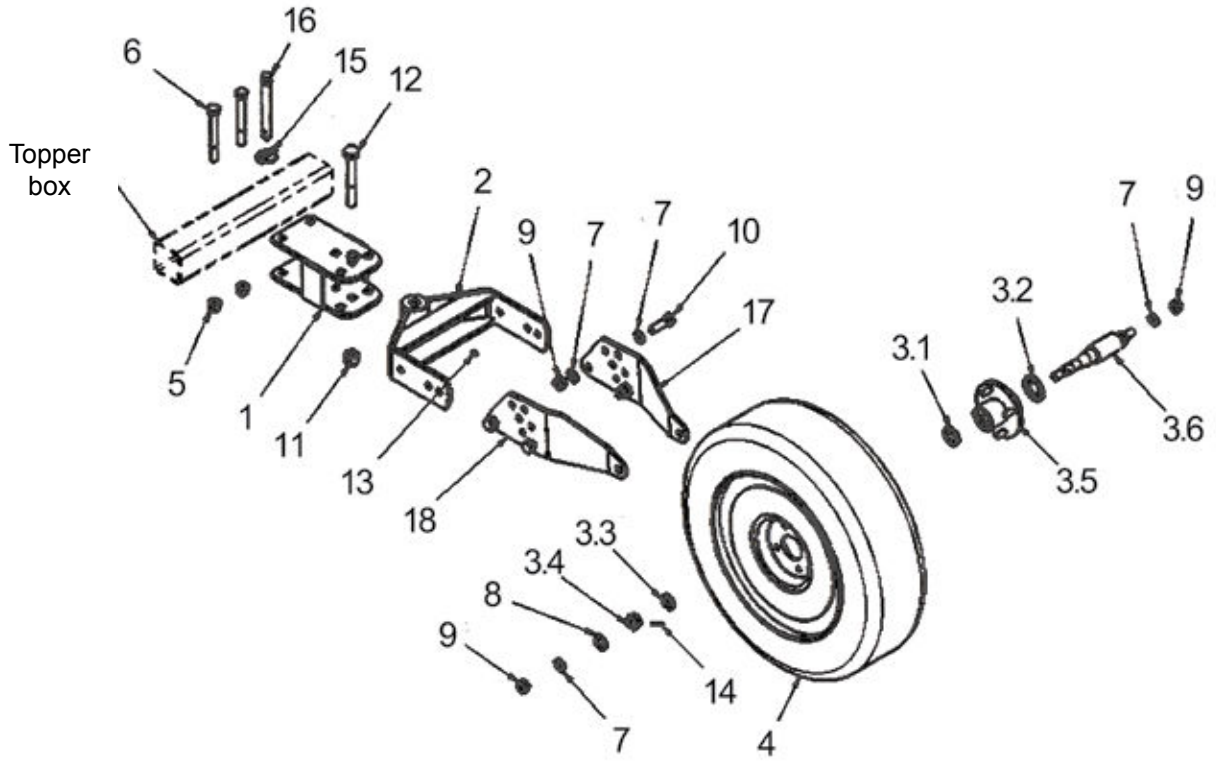
Item	Part No	Description	Qty
1	1385V3-D-BL	1385 BLADE (Anti_Clk)	1
2	1385V3-D-BR	1385 BLADE (Clk)	1
3	909GT-GDC01	GUARD CHAIN ADJUSTER	2
4	9GT-COV	900M GEARBOX COVER	1
5	9GTB-FAB	900M BODY FAB	1
6	9GTD	DRIVE TUBE (292mm)	2
7	SL45RG	405 REAR GUARD	2
8	SL65RG	REAR GUARD	3
9	SLH16AS	SKID (OFFSET)	2
10	TWA-002	TOPPER CAR WHEEL ASSY	2
11	1/2F	1/2" FINE NYLOC NUT	12
12	12x112FSKS	1/2"x1 1/2" FINE SOCKET HEAD 12.9	12
13	190.000.545	PTO GUARD (EXTENDED OVAL)	1
14	3546	LINCH PIN DIA 9.5	3
15	MJ40L	6 SPLINE "L" BOX RATIO 1.47	2
16	5/8F	5/8" FINE NYLOC NUT	8
17	58x2FBZP	5/8"x2" FINE BOLT	8
18	81	CAT 2 PIN DIA 25.4x110mm	1
19	8SM18	6 SPLINE STAR DRIVE	2
20	909-AF-01	909 A-FRAME 2011	1
21	9GTSTRP	900M STRAP (3226mm)	1
22	EW29A	5/8" "D" SHACKLE	3
23	FWM12	M12 FLAT WASHER	4
24	FWM20	M20 FLAT WASHER	4
25	FWM8	M8 FLAT WASHER	4
26	GM12-A	GUARD MOUNT BUFFER	4
27	M10	M10 NYLOC NUT	2
28	M10x35SZP	M10x35 SET BOLT	2
29	M12	M12 NYLOC NUT	16
30	M12x30SZP	M12x30 SET BOLT	12
31	M12x35BZP	M12x35 BOLT	4
32	M12x50SB	M12x50mm STUD	4
33	M20	M20 NYLOC NUT	2
34	M20x120BZP	M20x120 BOLT	2
35	M8x16SZP	M8x16 SET BOLT	4
36	MJRC-113	113 PCD RUBBER COUPLING	2
37	112	CAT 2 PIN DIA 28.5x159mm	2
38	SW12	1/2" SPRING WASHER	4
39	SW58	5/8" SPRING WASHER	8
40	T27A267245	6 SPLINE "T" BOX RATIO 1.92	1
41	T600810ENC12RB2	T60 SHEAR BOLT O/R	1

909HD Grass Topper
Overview

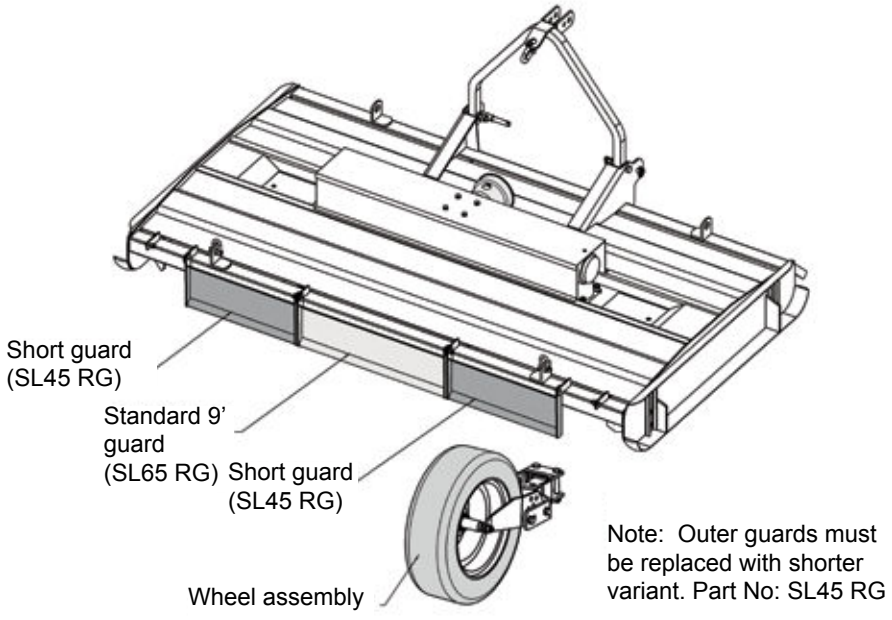


Item	Part No	Description	Qty
1	1385V2-D-BL	1385 BLADE (Anti_Clk)	1
2	1385V2-D-BR	1385 BLADE (Clk)	1
3	909GT-B01	909GT-BODY	1
4	909GT-DRV	DRIVE TUBE (242mm)	2
5	909GT-GDC01	GUARD CHAIN ADJUSTER	2
6	GM12-A	GUARD MOUNT BUFFER	4
7	SL45RG	405 REAR GUARD	2
8	SL65RG	REAR GUARD	3
9	SLH16AS	SKID (OFFSET)	2
10	TWA-002	TOPPER CAR WHEEL ASSY	2
11	1/2F	1/2" FINE NYLOC NUT	12
12	12x112FSKS	1/2"x1 1/2" FINE SOCKET HD 12.9	12
13	3546	LINCH PIN DIA 9.5	3
14	LF140T/1	6 SPLINE "L" BOX RATIO 1:1	2
15	190.000.545	PTO GUARD (EXTENDED OVAL)	1
16	5/8F	5/8" FINE NYLOC NUT	8
17	81	CAT 2 PIN DIA 25.4x110mm	1
18	8SM18	6 SPLINE STAR DRIVE	2
19	909-AF-01	909 A-FRAME 2011	1
20	9GTSTRP	900M STRAP (3226mm)	1
21	EW29A	5/8" "D" SHACKLE	3
22	FWM16	M16 FLAT WASHER	4
23	FWM20	M20 FLAT WASHER	4
24	FWM8	M8 FLAT WASHER	4
25	LS002	ANTI VIBRATION RUBBER	7
26	M10	M10 NYLOC NUT	2
27	M10x35SZP	M10x35 SET BOLT	2
28	M12	M12 NYLOC NUT	12
29	M12x30SZP	M12x30 SET BOLT	8
30	M12x35BZP	M12x35 BOLT	4
31	M20	M20 NYLOC NUT	10
32	M20x120BZP	M20x120 BOLT	2
33	M20x60BZP	M20x60 BOLT	8
34	M8x16SZP	M8x16 SET BOLT	4
35	MJRC-113	113 PCD RUBBER COUPLING	2
36	112	CAT 2 PIN DIA 28.5x159mm	2
37	SW58	5/8" SPRING WASHER	4
38	SWM20	M20 SPRING WASHER	8
39	T292B/2	6 SPLINE "T" BOX RATIO 1:1.47	1
40	V600910ENC12RW6	V60 FIXED SLIP CLUTCH	1
41	T292A-S1	T292 G/BOX STUD	8
42	909GT-COV	909 GEARBOX COVER	1

9FTGDX-HD and 909HD Wheel Assembly



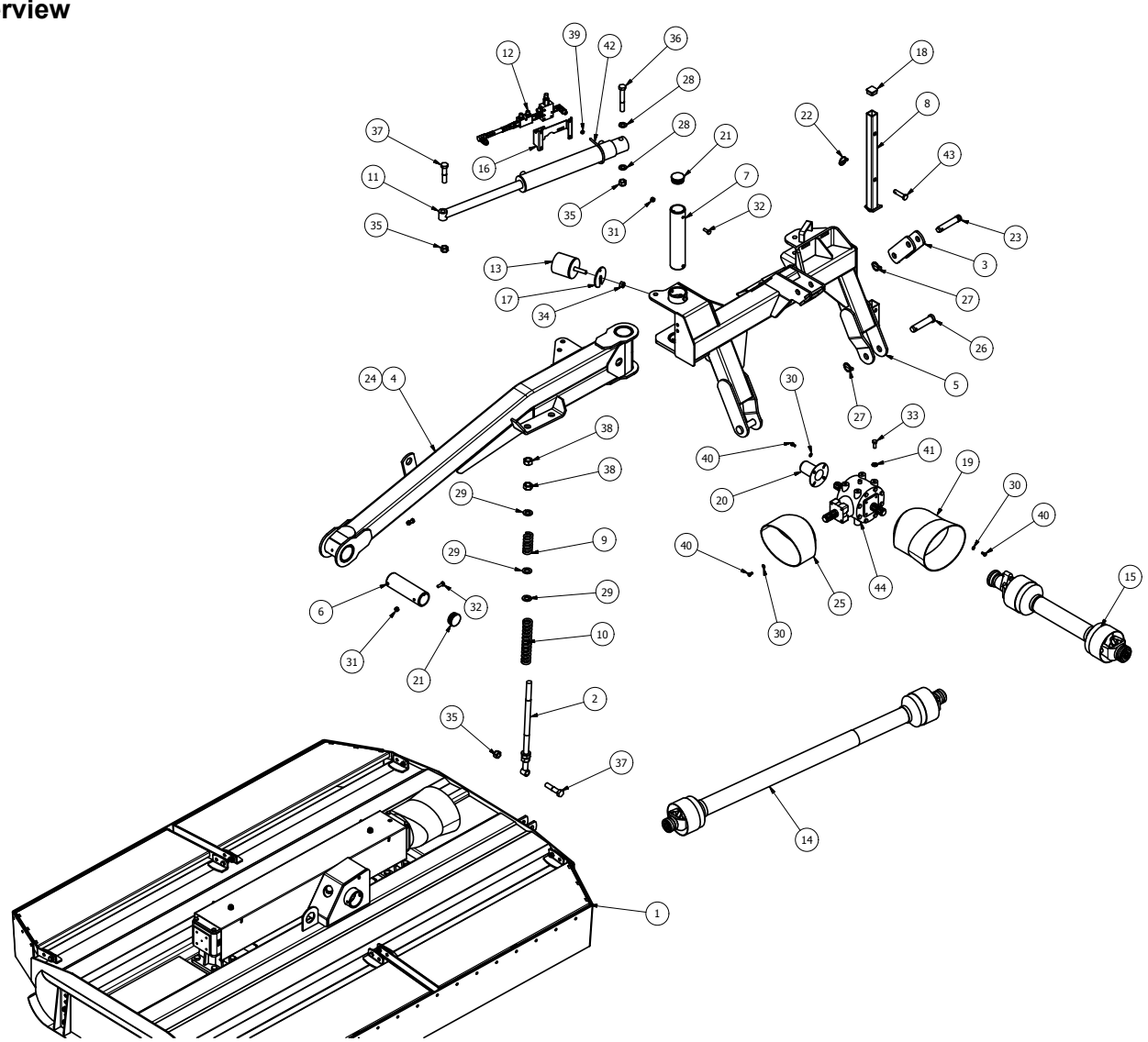
Item	Part No	Description	Qty
1	TWA-020	PIVOT MOUNT	1
2	TWA-030	PIVOT ARM	1
3.1	30204-AV	NILOS RING 47x20	1
3.2	30206AV	NILOS RING 62x30	1
3.3	FWM20	M20 FLAT WASHER	1
3.4	M20FCASTLET	CASTLE NUT (THIN)	1
3.5	TWA-052	TOPPER 4 STUD AXLE HUB	1
3.6	TWA-056	HUB SHAFT FOR 17570R14	1
4	17570R14	Wheel 'DIA 600x170mm	1
5	5/8F	5/8" FINE NYLOC NUT	4
6	58x5FBZP	5/8"x5" FINE BOLT	2
7	FWM16	M16 FLAT WASHER	10
8	FWM20	M20 FLAT WASHER	1
9	M16	Nyloc Nut	6
10	M16x50BZP	Bolt	4
11	M20	M20 NYLOC NUT	1
12	M20x130BZP	M20x130 BOLT	1
13	850	GREASE NIPPLE M8 STR	1
14	1500	SPLIT PIN 1/8"x1 1/2"	1
15	3546	LINCH PIN DIA 9.5	1
16	77	CAT 1 PIN DIA 19x127mm	1
17	TWA-045	AXLE PLATE (CAR)	1
18	TWA-045H	AXLE PLATE (CAR)	1



Note: Outer guards must be replaced with shorter variant. Part No: SL45 RG

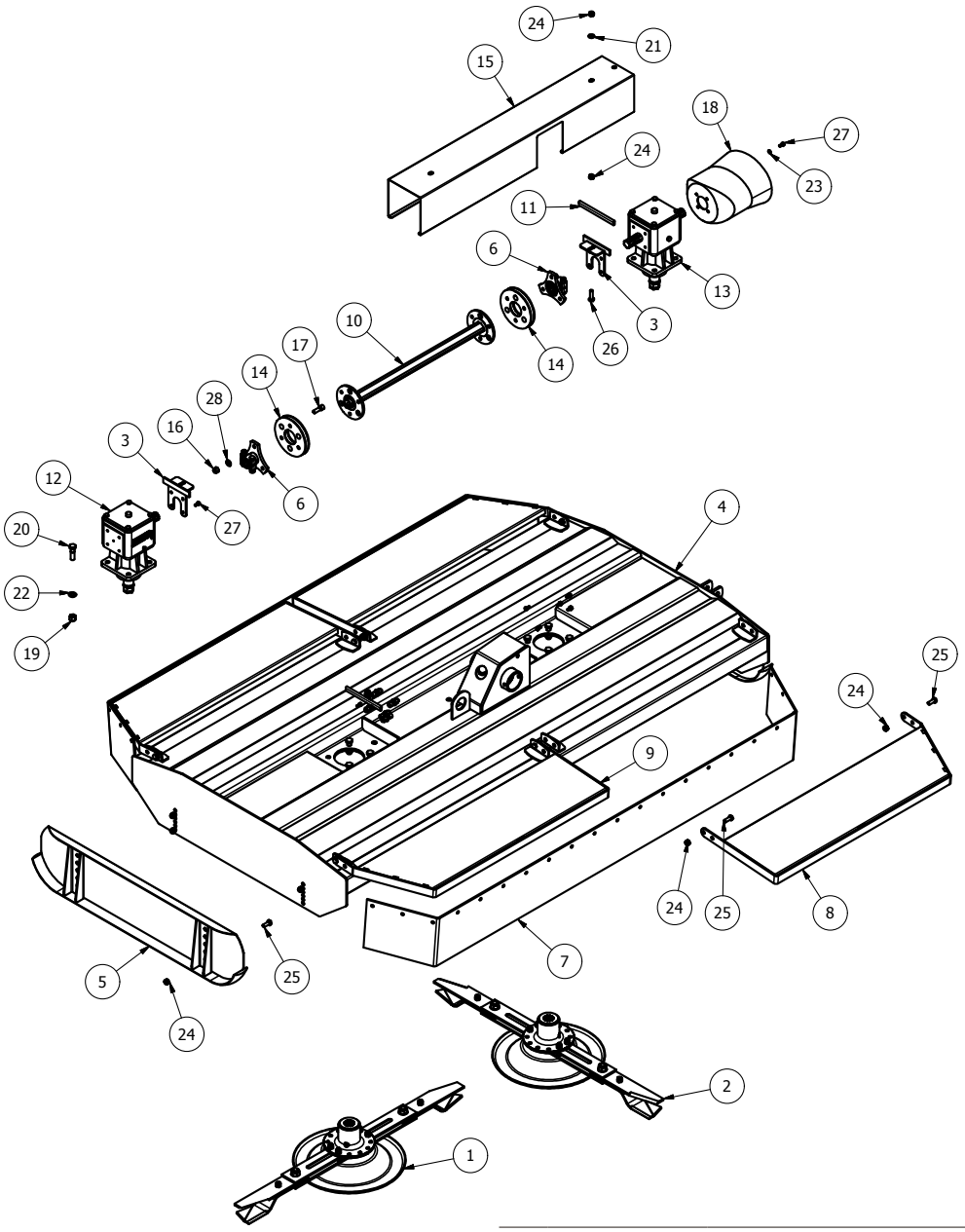
NOTE: Outer guards must be replaced with shorter varient. Part number SL45-RG.

800SM-HD Grass Topper
Overview



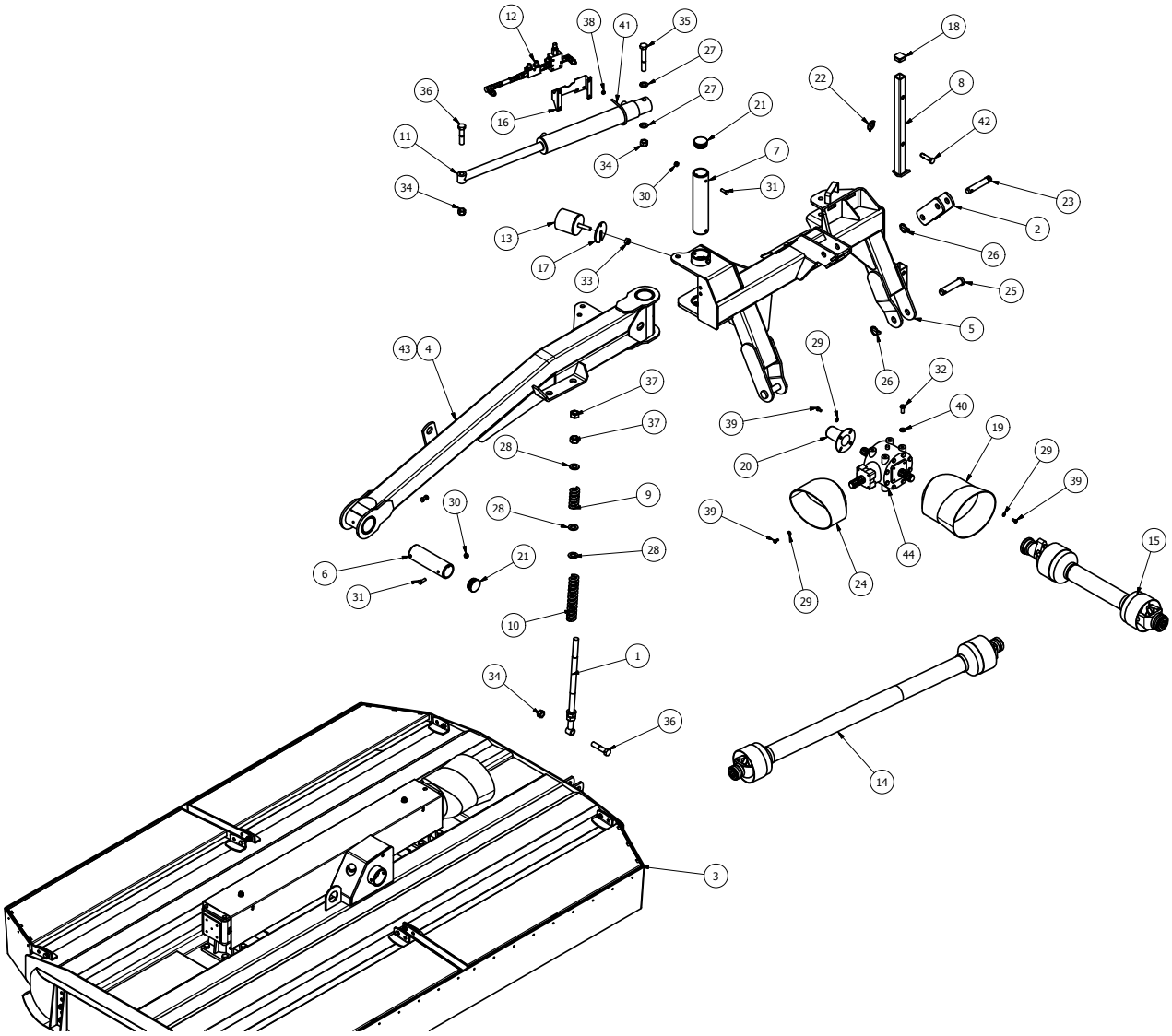
Item	Part No	Description	Qty
1	8SM-BGA	800SM BODY ASSY	1
2	8SM5	DAMPER BAR	1
3	8SM8	TOP LINK FLOAT HINGE	1
4	9SM-CA01	900SM CARRY ARM FAB	1
5	9SM-L001	900SM LINKAGE	1
6	9SM-PP04	BODY PIN TUBE	1
7	9SM-PP05	LINKAGE PIN TUBE	1
8	9SM-STD15	LINKAGE STAND	1
9	8SM12-9	DAMPER SPRING (UPPER)	1
10	8SM13-9	DAMPER SPRING (LOWER)	1
11	900SM-09RAM	900SM RAM	1
12	9SM-HYD01	900SM HYDRAULICS	1
13	MOT10	DIA 100x100 BUFFER	1
14	T501160CEC12C12	COLLAR-COLLAR PTO	1
15	T600610ENC12RB2	T60 SHEAR BOLT O/R	1
16	9SM-HYD06	VALVE MOUNT	1
17	8T19	BUFFER SPACER	1
18	111203	SQ 34-38mm INSERT (POL)	1
19	190.000.545	PTO GUARD (EXTENDED OVAL)	1
20	190592	PTO HAT	1
21	199268	DIA 63.5mm (2-4mm) INSERT	2
22	37	LINCH PIN DIA 6	1
23	81	CAT 2 PIN DIA 25.4x110mm	1
24	820	GREASE NIPPLE 1/8" STR	2
25	8SM11-2	PTO GUARD (OVAL)	1
26	9162	CAT 2 PIN DIA 28.5x113mm	2
27	AN099/10	LINCH PIN DIA 9.5	3
28	FWM20	M20 FLAT WASHER	2
29	FWM24	M24 FLAT WASHER	3
30	FWM8	M8 FLAT WASHER	10
31	M10	M10 NYLOC NUT	8
32	M10x30SZP	M10x30 SET BOLT	8
33	M12x30SZP	M12x30 SET BOLT	4
34	M16	M16 NYLOC NUT	1
35	M20	M20 NYLOC NUT	3
36	M20x130BZP	M20x130 BOLT	1
37	M20x90BZP	M20x90 BOLT	2
38	M24HEX	M24 PLAIN NUT	2
39	M8	M8 NYLOC NUT	4
40	M8x16SZP	M8x16 SET BOLT	10
41	NL12SP	M12 SP NORDLOCK	4
42	S13916	DIA 83mm SILENCER CLAMP	2
43	S15010	CAT 0 PIN DIA 16x54mm	1
44	T304215	6 SPLINE 'T' BOX RATIO 1:1.93	1

800SM-HD Body



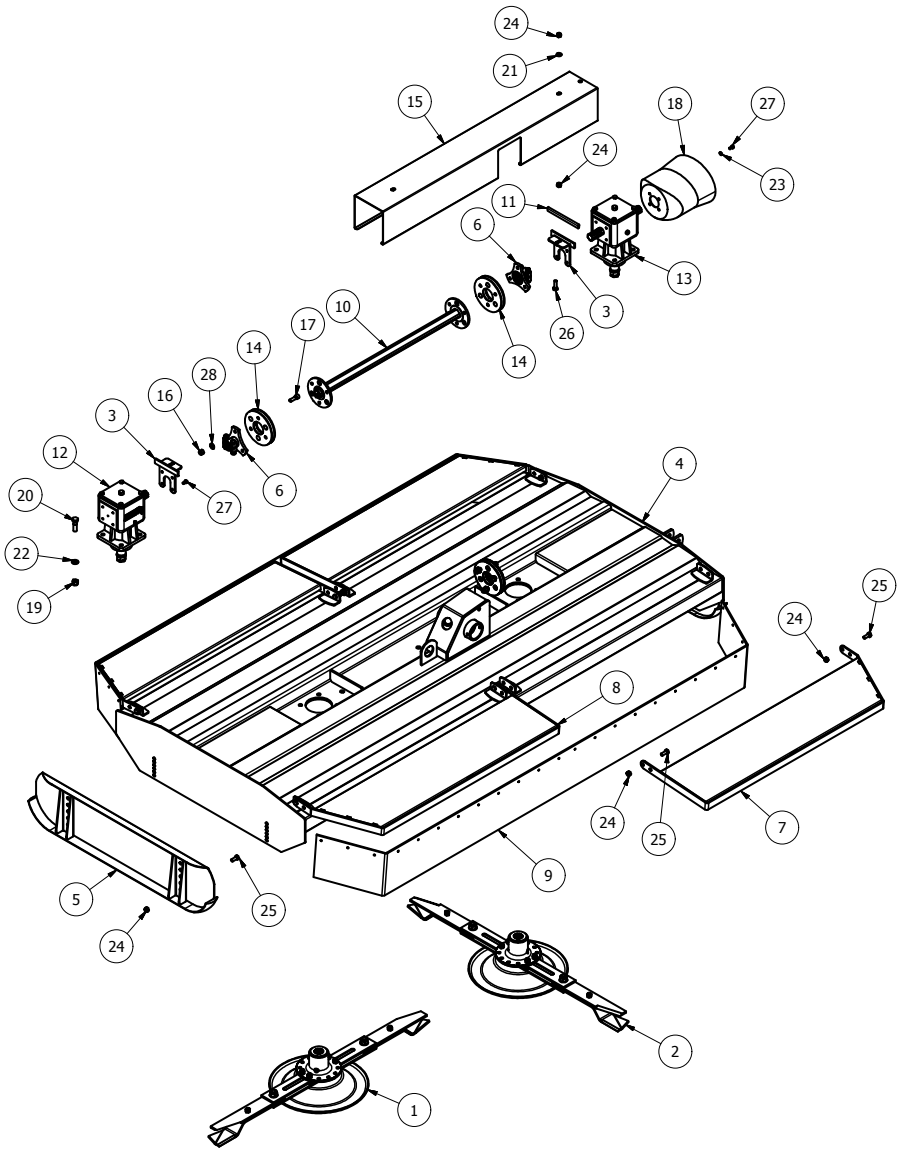
Item	Part No	Description	Qty
1	1239V2-D-BL	1239 BLADE (Anti_Clk)	1
2	1239V2-D-BR	1239 BLADE (Clk)	1
3	8SM-CVR	G/BOX COVER BRKT	2
4	8SM2	800SM BODY	1
5	NT11	SM SKID	2
6	60CSD	60mm STAR DRIVE	2
7	8SM-30	800SM SKIRT	2
8	8SM-GRD	800SM RIGHT HAND GUARD	2
9	8SM-GRDH	800SM LEFT HAND GUARD	2
10	DRV-RC-800T	800T DRIVE	1
11	LS002	ANTI VIBRATION RUBBER	2
12	MJ40L (347800)	6 SPLINE 'L' BOX RATIO 1.47	1
13	MJ40T (347801)	6 SPLINE 'T' BOX RATIO 1.47	1
14	MJRC-23	113 PCD COUPLING 4mm PLT	2
15	8SM19	800SM GEARBOX COVER	1
16	12HEX109	1/2F HEX 10.9	12
17	12x112FSKS	1/2"x1 1/2" FINE SOCKET HEAD 12.9	12
18	190.000.545	PTO GUARD (EXTENDED OVAL)	1
19	5/8F	5/8" FINE NYLOC NUT	8
20	58x214FBZP	5/8"x2 1/4" FINE BOLT	8
21	FWM12	M12 FLAT WASHER	2
22	FWM16	M16 FLAT WASHER	8
23	FWM8	M8 FLAT WASHER	4
24	M12	M12 NYLOC NUT	20
25	M12x30SZP	M12x30 SET BOLT	16
26	M12x40SZP	M12x40 SET BOLT	2
27	M8x16SZP	M8x16 SET BOLT	8
28	NL12SP	M12 SP NORDLOCK	12

900SM-HD Grass Topper
Overview



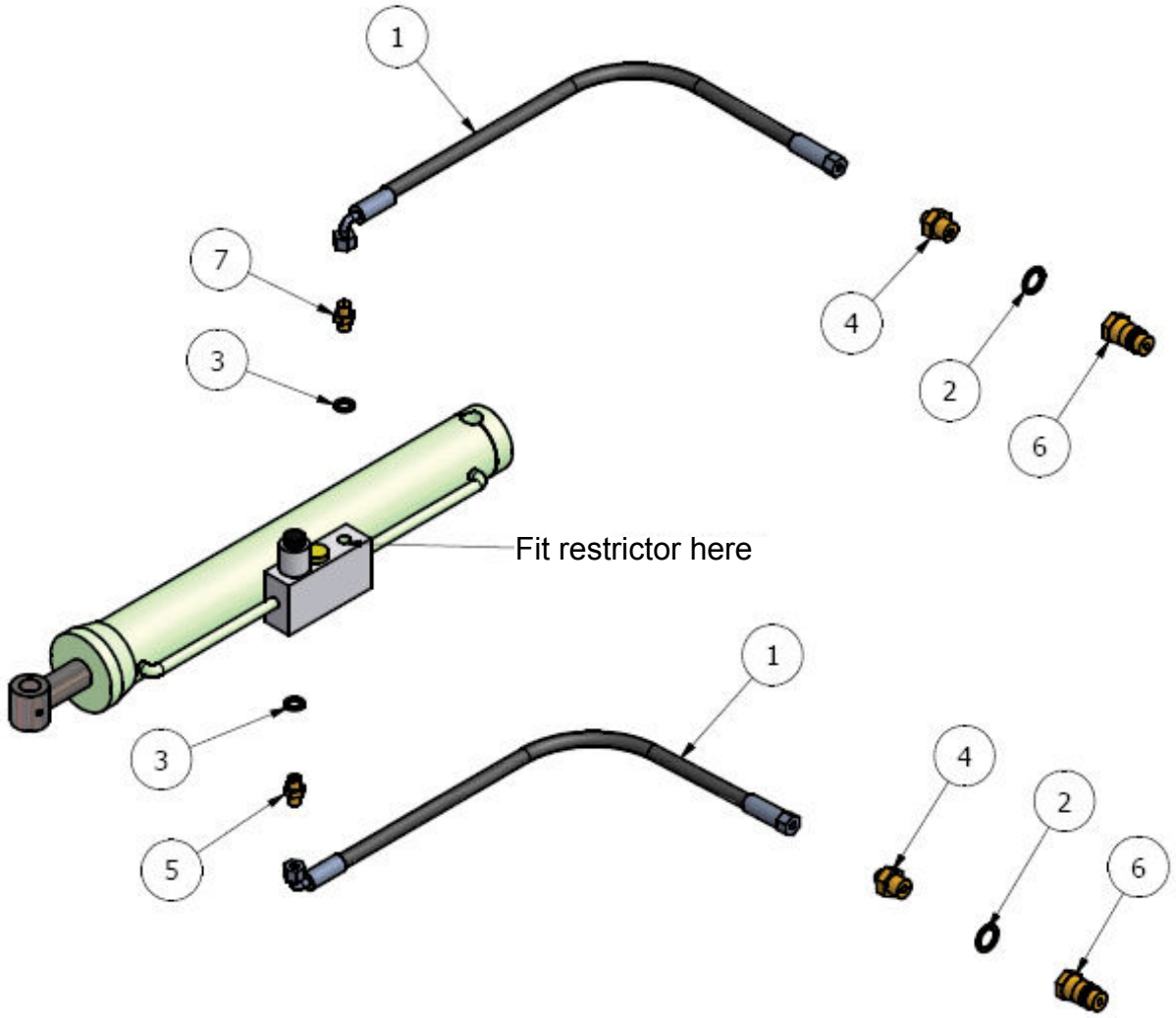
Item	Part No	Description	Qty
1	8SM5	DAMPER BAR	1
2	8SM8	TOP LINK FLOAT HINGE	1
3	9SM-BGA	900SM BODY ASSY	1
4	9SM-CA01	900SM CARRY ARM FAB	1
5	9SM-L001	900SM LINKAGE	1
6	9SM-PP04	BODY PIN TUBE	1
7	9SM-PP05	LINKAGE PIN TUBE	1
8	9SM-STD15	LINKAGE STAND	1
9	8SM12-9	DAMPER SPRING (UPPER)	1
10	8SM13-9	DAMPER SPRING (LOWER)	1
11	900SM-09RAM	900SM RAM	1
12	9SM-HYD01	900SM HYDRAULICS	1
13	MOT10	DIA 100x100 BUFFER	1
14	T501010CEC12C12	COLLAR-COLLAR PTO	1
15	T600610ENC12RB2	T60 SHEAR BOLT O/R	1
16	9SM-HYD06	VALVE MOUNT	1
17	8T19	BUFFER SPACER	1
18	111203	SQ 34-38mm INSERT (POL)	1
19	190.000.545	PTO GUARD (EXTENDED OVAL)	1
20	190592	PTO HAT	1
21	199268	DIA 63.5mm (2-4mm) INSERT	2
22	37	LINCH PIN DIA 6	1
23	81	CAT 2 PIN DIA 25.4x110mm	1
24	8SM11-2	PTO GUARD (OVAL)	1
25	9162	CAT 2 PIN DIA 28.5x113mm	2
26	AN099/10	LINCH PIN DIA 9.5	3
27	FWM20	M20 FLAT WASHER	2
28	FWM24	M24 FLAT WASHER	3
29	FWM8	M8 FLAT WASHER	10
30	M10	M10 NYLOC NUT	8
31	M10x30SZP	M10x30 SET BOLT	8
32	M12x30SZP	M12x30 SET BOLT	4
33	M16	M16 NYLOC NUT	1
34	M20	M20 NYLOC NUT	3
35	M20x130BZP	M20x130 BOLT	1
36	M20x90BZP	M20x90 BOLT	2
37	M24HEX	M24 PLAIN NUT	2
38	M8	M8 NYLOC NUT	4
39	M8x16SZP	M8x16 SET BOLT	10
40	NL12SP	M12 SP NORDLOCK	4
41	S13916	DIA 83mm SILENCER CLAMP	2
42	S15010	CAT 0 PIN DIA 16x54mm	1
43	S820	GREASE NIPPLE 1/8" STR	2
44	T304215	6 SPLINE 'T' BOX RATIO 1:1.93	1
44	9SM-HYD06	VALVE MOUNT	1

900SM-HD Body



Item	Part No	Description	Qty
1	1385V3-D-BL	1385 BLADE (Anti_Clk)	1
2	1385V3-D-BR	1385 BLADE (Clk)	1
3	8SM-CVR	G/BOX COVER BRKT	2
4	9SM-B001	900SM BODY	1
5	NT11	SM SKID	2
6	60CSD	60mm STAR DRIVE	2
7	9SM-GRD1	900SM GUARD	2
8	9SM-GRD1H	900SM GUARD	2
9	9T-SKF	9OOT SKIRT	2
10	DRV-RC-900T	900T DRIVE	1
11	LS002	ANTI VIBRATION RUBBER	2
12	MJ40L (347800)	6 SPLINE 'L' BOX RATIO 1.47	1
13	MJ40T (347801)	6 SPLINE 'T' BOX RATIO 1.47	1
14	MJRC-23	113 PCD COUPLING 4mm PLT	4
15	9SM-G002	900SM GEARBOX COVER	1
16	12HEX109	1/2F HEX 10.9	12
17	12x112FSKS	1/2"x1 1/2" FINE SOCKET HEAD 12.9	12
18	190.000.545	PTO GUARD (EXTENDED OVAL)	1
19	5/8F	5/8" FINE NYLOC NUT	8
20	58x214FBZP	5/8"x2 1/4" FINE BOLT	8
21	FWM12	M12 FLAT WASHER	2
22	FWM16	M16 FLAT WASHER	8
23	FWM8	M8 FLAT WASHER	4
24	M12	M12 NYLOC NUT	20
25	M12x30SZP	M12x30 SET BOLT	16
26	M12x40SZP	M12x40 SET BOLT	2
27	M8x16SZP	M8x16 SET BOLT	8
28	NL12SP	M12 SP NORDLOCK	12

800SM and 900SM Hydraulics



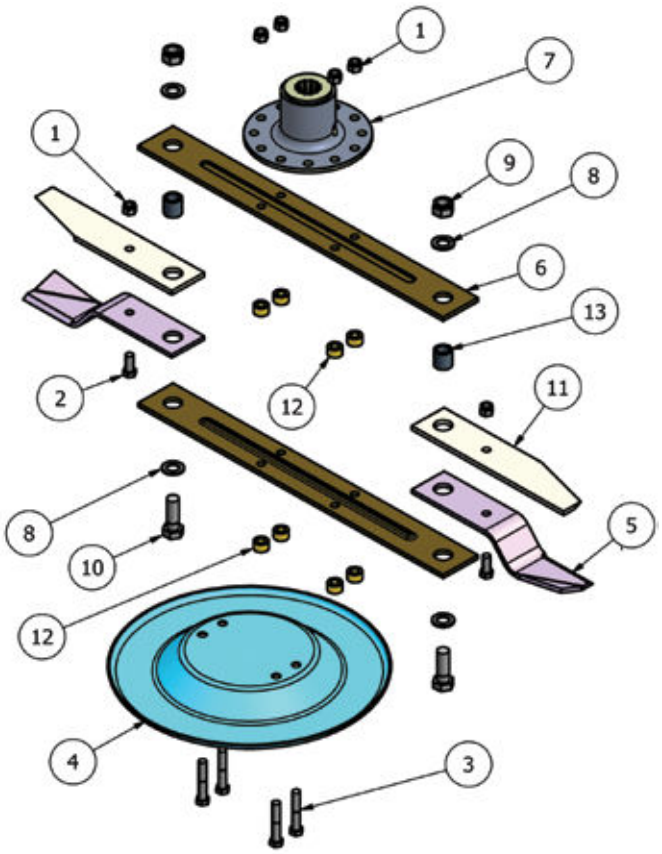
Item	Part No	Description	Qty
1	900SM_HOSE	1/4”Hydraulic Hose Str to Block 90	2
2	EDOW12	1/2” DOWTY WASHER	2
3	EDOW14	1/4 DOWTY SEAL	2
4	EMM1214	1/2-14” M/M CONNECTOR	2
5	EMM14	1/4” M/M CONNECTOR	2
6	QRM12	1/2” QUICK RELEASE MALE	2
7	EMM14RV	1/4” M/M RESTRICTOR (1mm)	1

Blades

240518

PRO-CUT BLADE SYSTEMS - on all machines **from April 2009**

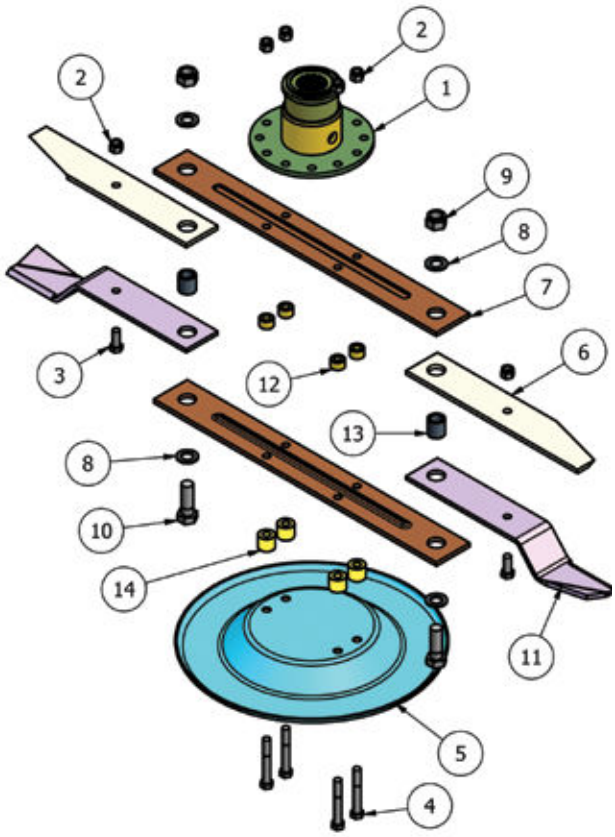
MACHINE MODEL: 800SM-HD
Blade System: 1239-D-BL and 1239-D-BR



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**
5	**9GTB/C**	**SWING BLADE (Clk)**	**2**
6	BLDB-623	BLADE BACK (623 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
800SM-HD	1 clockwise 1 anti clockwise

MACHINE MODEL: 900SM-HD, 9FTGDX-HD
Blade System: 1385V3-D-BL and 1385V3-D-BR

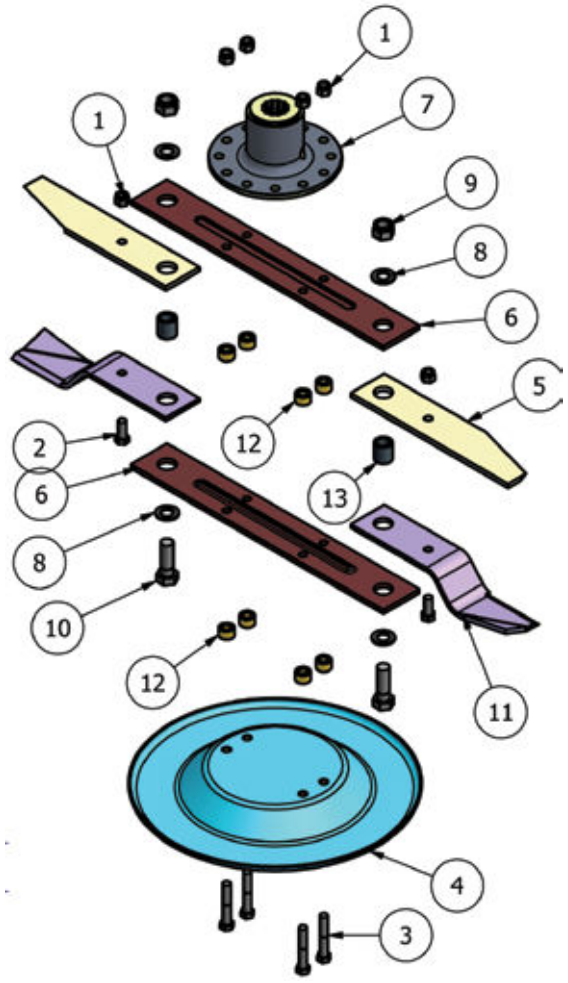


Item	Part No	Description	Qty
1	DF-BMP	J205 G/BOX BLADE MOUNT	1
2	1/2F	1/2" FINE NYLOC NUT	6
3	12x114FBZP	1/2"x1 1/4" FINE BOLT	2
4	12x312FBZP	1/2"x3 1/2" FINE BOLT	4
5	9GT-USS	UNDER SOLE SKID	1
6	BLD-OV375	OVERLAP BLADE 375mm	2
7	BLDB-595	BLADE BACK (595 CTR)	2
8	FWM20	M20 FLAT WASHER	4
9	M20	M20 NYLOC NUT	2
10	M20x60BZP	M20x60 BOLT	2
11	**NTSB10A1**	**601 SLASHER BLADE (Anti-Clk)**	**2**
11	**NTSB10A2**	**601 SLASHER BLADE (Clk)**	**2**
12	12T-BBS	BLADE BACK SPACER	4
13	12T-LBB	OVERLAP BLADE BUSH	2
14	84RM-BAM	BLADE BACK SPACER-PLATED	4

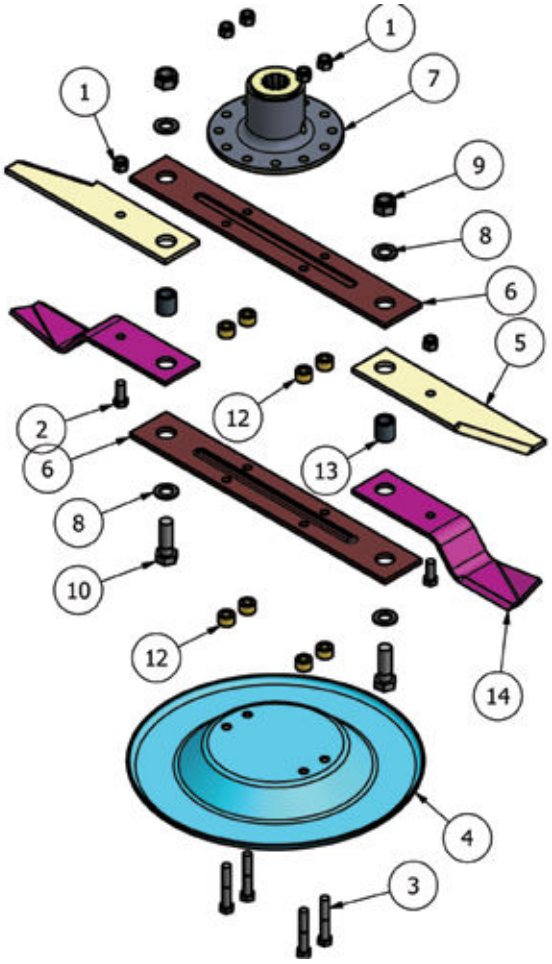
MACHINE	QTY
900SM-HD	1 clockwise 1 anti clockwise
9FTGDX-HD	1 clockwise 1 anti clockwise
909HD	1 clockwise 1 anti clockwise

NOTE: Please have the serial number of your machine to hand when ordering blades to ensure you get the correct parts.

MACHINE MODEL: 7FTGDX-HD



1097-D-BL Blades



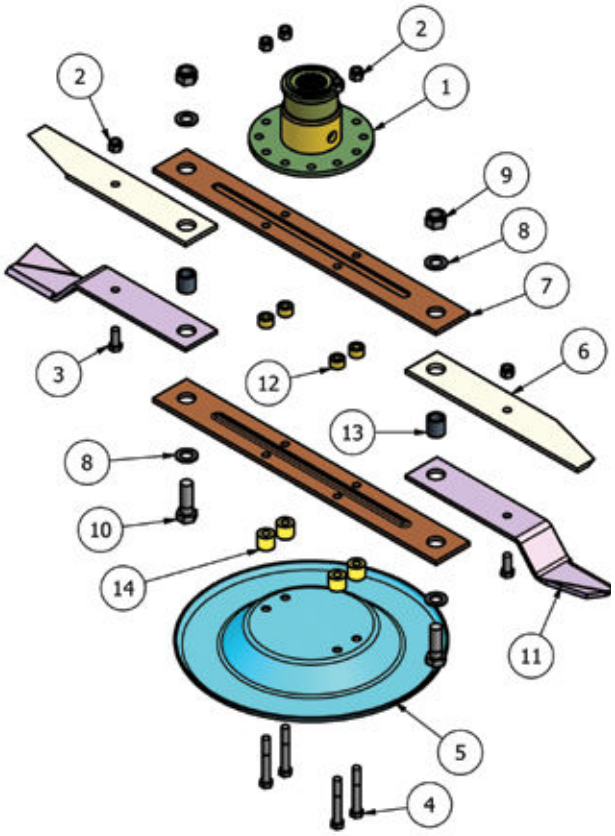
1097-D-BR Blades

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	NTSB12C	OVERLAP BLADE	2
6	GM26	BLADE BACK (481 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	9GTB/A	SWING BLADE (Anti-Clk)	2
12	12T-BBS	BLADE BACK SPACER	8
13	12T-LBB	OVERLAP BLADE BUSH	2

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	NTSB12C	OVERLAP BLADE	2
6	GM26	BLADE BACK (481 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
12	12T-BBS	BLADE BACK SPACER	8
13	12T-LBB	OVERLAP BLADE BUSH	2
14	9GTB/C	SWING BLADE (Clk)	2

MACHINE	QTY
7FTGDX-HD	1 clockwise 1 anti clockwise

MACHINE MODEL: 909HD
Blade System: 1385V3-D-BL and 1385V3-D-BR



Item	Part No	Description	Qty
1	909GT-BM01	909GT BLADE MOUNT	1
2	1/2F	1/2" FINE NYLOC NUT	6
3	12x114FBZP	1/2"x1 1/4" FINE BOLT	2
4	12x312FBZP	1/2"x3 1/2" FINE BOLT	4
5	9GT-USS	UNDER SOLE SKID	1
6	BLD-OV375	OVERLAP BLADE 375mm	2
7	BLDB-595	BLADE BACK (595 CTR)	2
8	FWM20	M20 FLAT WASHER	4
9	M20	M20 NYLOC NUT	2
10	M20x60BZP	M20x60 BOLT	2
11	**NTSB10A1**	**601 SLASHER BLADE (Anti-Clk)**	**2**
11	**NTSB10A2**	**601 SLASHER BLADE (Clk)**	**2**
12	12T-BBS	BLADE BACK SPACER	4
13	12T-LBB	OVERLAP BLADE BUSH	2
14	84RM-BAM	BLADE BACK SPACER-PLATED	4

MACHINE	QTY
909HD	1 clockwise 1 anti clockwise

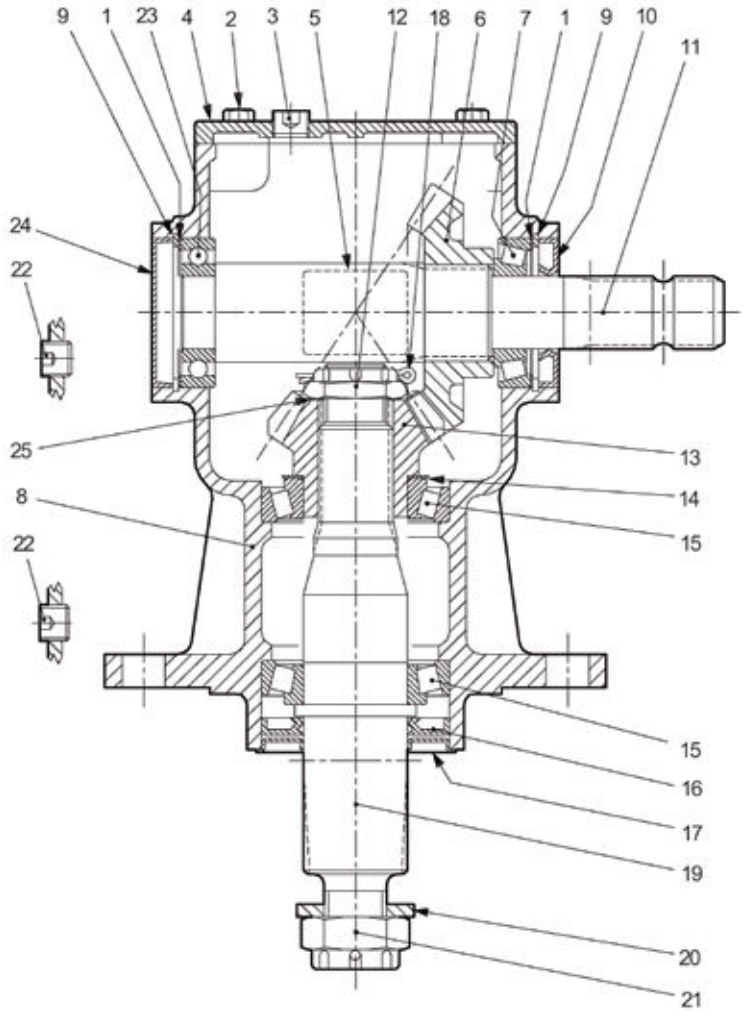
PTO Shafts

Machine	Primary	Secondary
800SM-HD	T600610ENC12RB2 (T60BOOR-900)	T501160ENC12C12
	T60 SHAFT OVERRUN+SHEARBOLT	T50 SHAFT COLLAR
900SM-HD	T600610ENC12RB2 (T60BOOR-900)	T501160ENC12C12
	T60 SHAFT OVERRUN+SHEARBOLT	T50 SHAFT COLLAR
9FTGDX-HD	T600810ENC12RW6	
	T60 SHAFT SLIP CLUTCH	
9FTGDX-HD (front mounted)	T601210ENC12RW6L	
	T60 SHAFT OVERRUN+CLUTCH FRONT	
909HD	V600910ENC12RW6	
	V60 SHAFT SLIP CLUTCH	

Gearboxes

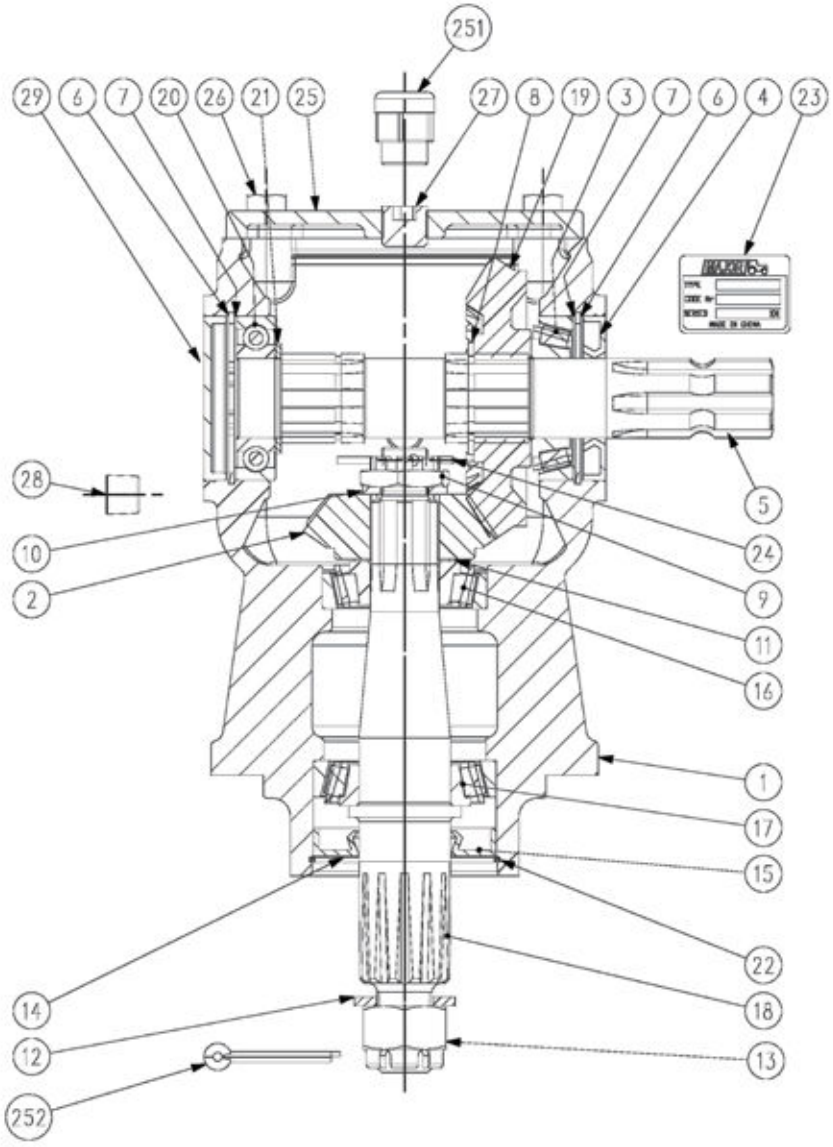
Machine	Gearbox		
7FTGDX-HD	MJ40L	T27A 267245	
9FTGDX-HD	MJ40L	T27A 267245	
909HD	LF140J	T292B/1	
800SM-HD, 900SM-HD	MJ40L	MJ40T	T304A

LF140J Gearbox Breakdown



Item	Part No	Description	Qty
1	0.248.7500.00	Shim Kit (60.3x71.7)	2
2	8.1.1.00041	Bolt M8X22	4
3	8.6.6.00088	1/2” Plug	1
4	0.140.302.00	Cover	1
5	0.124.7135.00	Name Plate	1
6	0.132.6004.00	Crown	1
7	8.0.9.00026	Bearing 30207	1
8	0.140.0300.00	Casting & machining	1
9	8.5.2.00131	Snap Ring (72x75x2.5)	2
10	8.7.3.00055	Oil Seal 25x72x10	1
11	0.140.2000.00	Input Shaft	1
12	0.132.7106.00	Castle Nut M30	1
13	0.116.6204.00	Pinion	1
14	0.712.7500.00	Shim kit (50.3x70.3)	1
15	8.0.9.00469	BEARING 30210	2
16	8.7.1.01107	Oil Seal (50x90x10)	1
17	0.139.7100.00	Washer	1
18	8.4.7.01111	Cotter Pin	1
19	0.140.3002.00	Output Shaft	1
20	0.139.7101.00	Washer	1
21	0.140.7102.00	Castle Nut M30	1
22	8.6.6.00201	3/8” Oil plug	2
23	8.0.1.00870	Bearing 6207	1
24	8.7.0.00744	Oil cap	1
25	0.102.7510.00	Shim	1

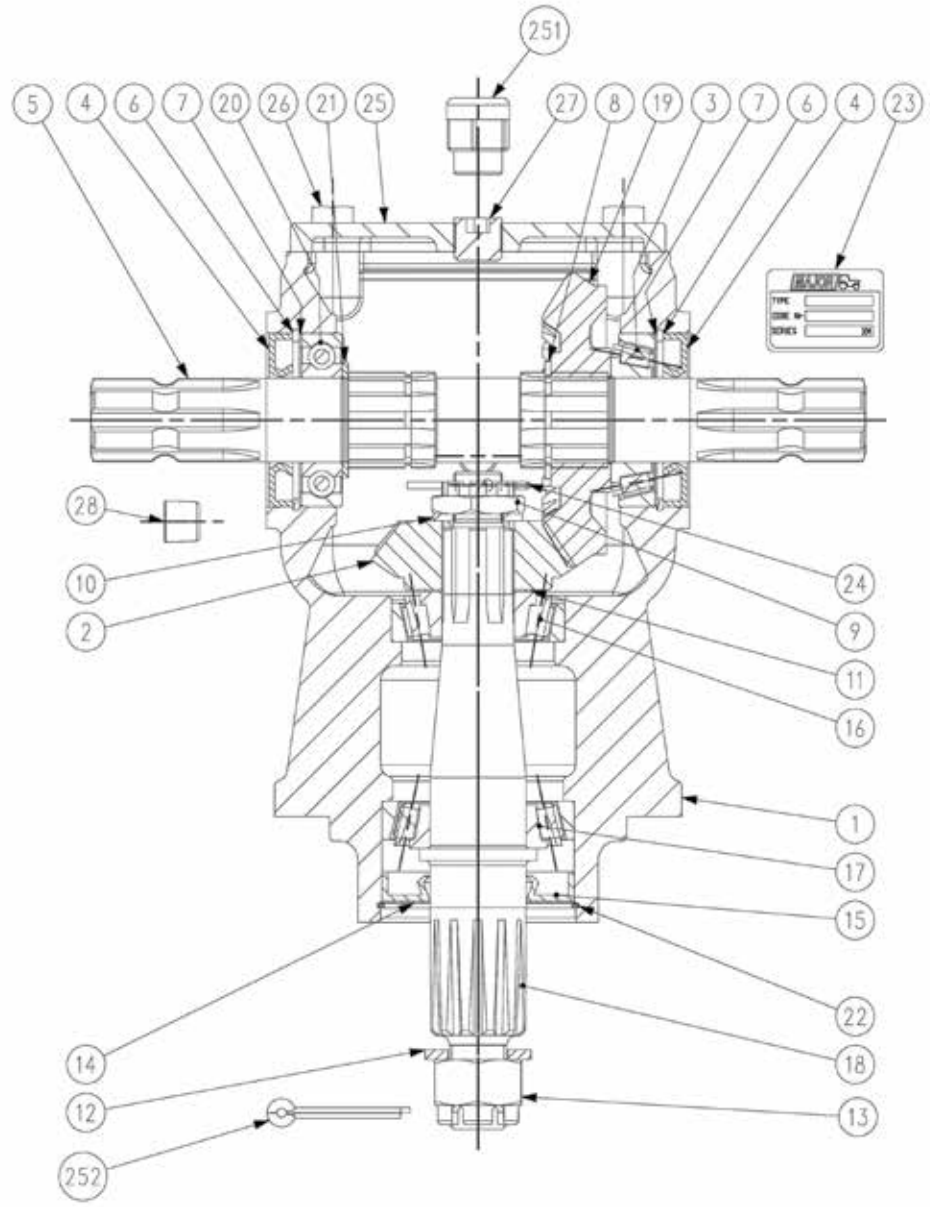
MJ40L Gearbox breakdown



Item	Part No	Description	Qty
1	0.347.0300.00	Casting and Machining	1
2	UO.040.5004.00	Gear Pinion Z15 M5.5	1
3	8.09.00026	Roller Bearing 30207 (35x72x18.25)	1
4	8.7.3.00055	Oil Seal (35x72x10)	1
5	0.347.3002.00	Through Shaft 1”3/8 Z6	1
6	8.5.2.00131	Snap Ring (72x75x2.5 , For Holes)	2
7	0.248.7500.00	Shim Kit (60.3x71.7)	2
8	8.5.1.00680	Snap Ring (40x37.5x2.5 , For Shafts)	1
9	0.289.7102.02	Castle Nut (M20X1)	1
10	8.3.2.00531	Flat Washer (21x37x3)	1
11	0.102.7500.00	Shim Kit (30.3x44)	1
12	LF135-2	Flat Washer (25x44x4)	1
13	LF135-1	Castle Nut (M24x2)	1
14	1.135.7100.00	Protective Flat Washer (40.4x79.9x1)	1
15	8.7.1.00748	Dust Lip (40x80x12)	1
16	8.0.9.01049	Roller Bearing 30306 (30x72x20.75)	1

Item	Part No	Description	Qty
17	8.0.9.00024	Roller Bearing 30208 (40x80x19.75)	1
18	UO.040.3006.01	Output Shaft ASA D.P. 8/16 Z12	1
19	UO.040.6004.00	Gear Crown Z22 M5.5	1
20	8.0.1.00870	Ball Bearing 6207 (35x72x17)	1
21	0.259.7525.00	Shim (35.3x48x2.5)	1
22	8.5.3.00955	Snap Ring SB 81 (81x82.8x2)	1
23	0.205.7100.00	“Major” Name Plate	1
24	8.4.7.00823	Cotter Pin (4x40)	1
25	0.347.1300.00	Top Cover	1
26	8.11.00061	Bolt M10x25 HHB (8.8)	4
27	8.6.6.00088	1/2” Gas Solid Plug	1
28	8.6.6.00201	3/8” Gas Oil Level Plug	1
29	8.7.0.00744	Oil Cap (72x10)	1
251	8.6.7.00269	1/2” Gas Oil Breather Plug	1
252	8.4.7.00516	Cotter Pin (5x50)	1

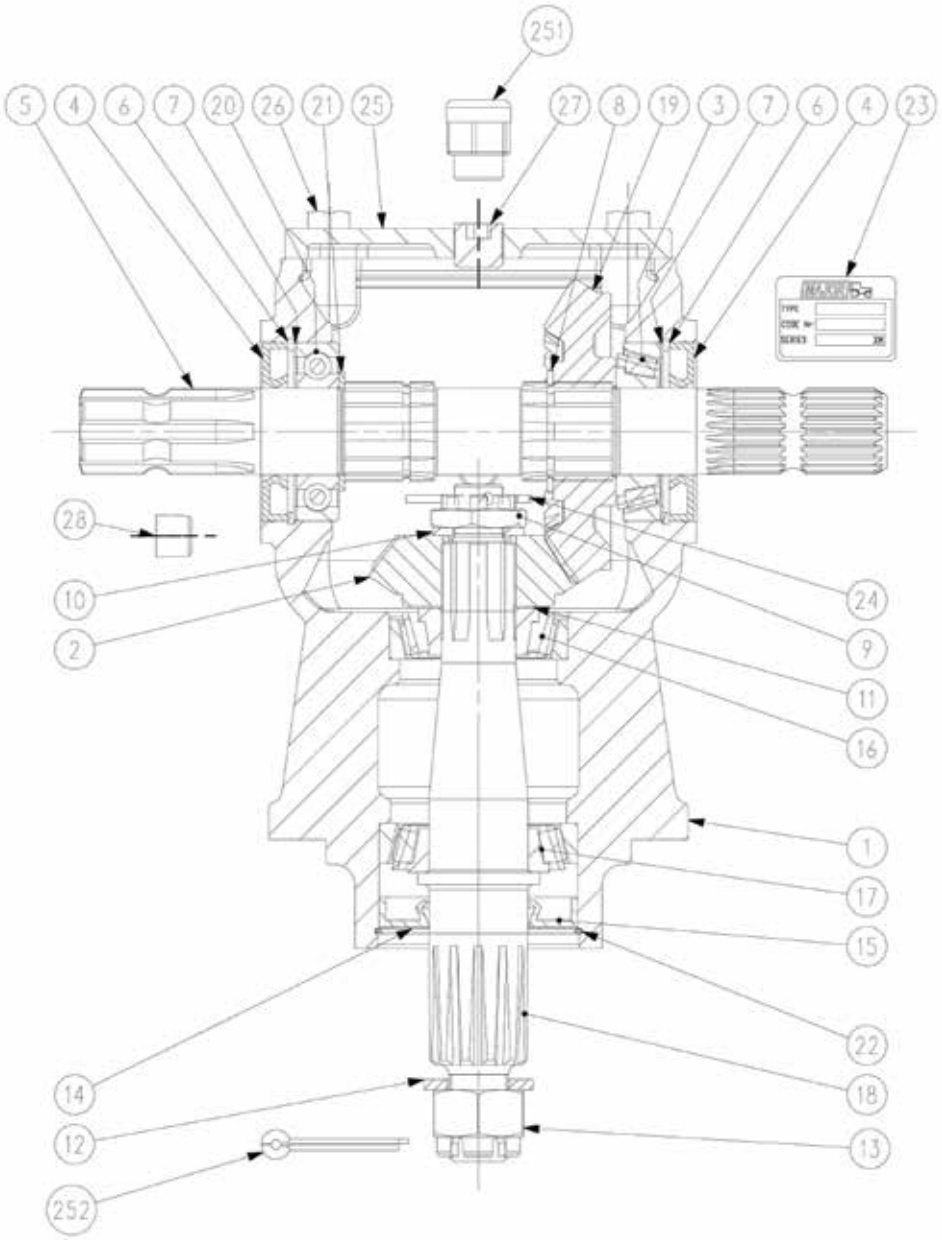
MJ40T Gearbox breakdown



Item	Part No	Description	Qty
1	0.347.0300.00	Casting and Machining	1
2	U0.040.5004.00	Gear Pinion Z15 M5.5	1
3	8.0.9.00026	Roller Bearing 30207 (35x72x28.25)	1
4	8.7.3.00055	Oil Seal (35x72x10)	2
5	0.347.3000.00	Through Shaft 1”3/8 Z6 - 1”3/8 Z6	1
6	8.5.2.00131	Snap Ring (72x75x2.5 , For Holes)	2
7	0.248.7500.00	Shim Kit (60.3x71.7)	2
8	8.5.1.00680	Snap Ring (40x37.5x2.5 , for shafts)	1
9	0.289.7102.02	Castle Nut (M20x1)	1
10	8.3.2.00531	Flat Washer (21x37x3)	1
11	0.102.7500.00	Shim kit (30.3x44)	1
12	LF135-2	Flat Washer (25x44x4)	1
13	LF135-1	Castle Nut (M24x2)	1
14	1.135.7100.00	Protective Flat Washer (40.4x79.9x1)	1
15	8.7.1.00748	Dust Lip (40x80x12)	1

Item	Part No	Description	Qty
16	8.0.9.01049	Roller Bearing 30306 (30x72x20.65)	1
17	8.0.9.00024	Roller Bearing 30208 (40x80x19.75)	1
18	U0.040.3006.01	Output Shaft ASA D.P. 8/16 Z12	1
19	U0.040.6004.00	Gear Crown Z22 M5.5	1
20	8.0.1.00870	Ball Bearing 6207 (35x72x17)	1
21	0.259.7525.00	Shim (35.5x48x2.5)	1
22	8.5.3.00955	Snap Ring SB 81 (81x82.8x2)	1
23	0.205.7100.00	“Major” Name Plate	1
24	8.4.7.00823	Cotter Pin (4x40)	1
25	0.347.1300.00	Top Cover	1
26	8.1.1.00061	Bolt M10x25 HHB (8.8)	4
27	8.6.6.00088	1/2” Gas Solid Plug	1
28	8.6.6.00201	3/8” Gas Oil Level Plug	1
251	8.6.7.00269	1/2” Gas Oil Breather Plug	1
252	8.4.7.00516	Cotter Pin (5x50)	1

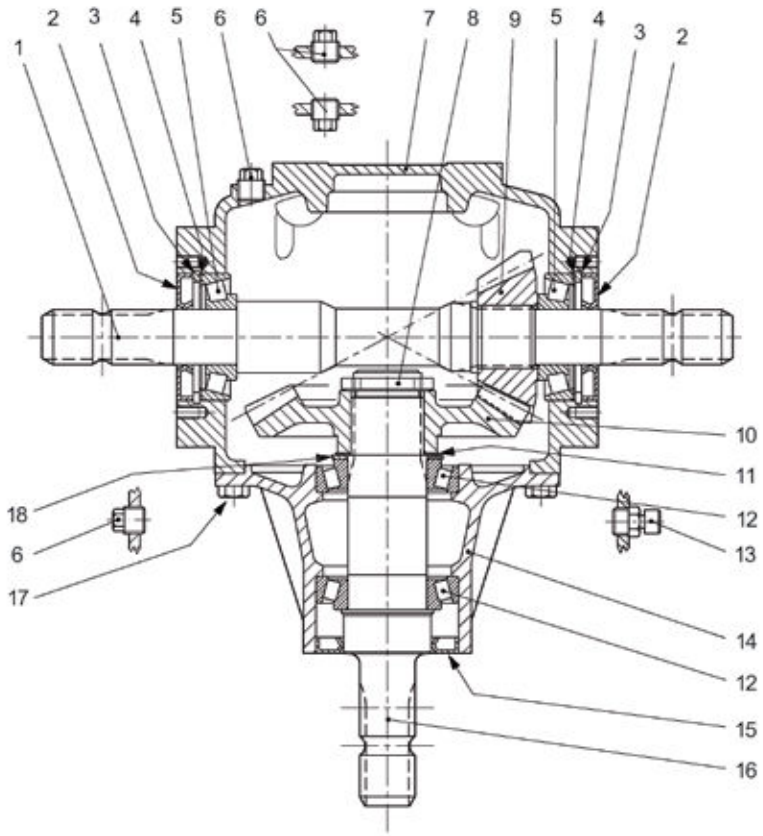
MJ40T21 Gearbox breakdown



Item	Part No	Description	Qty
1	0.347.0300.00	Casting and Machining	1
2	U0.040.5004.00	Gear Pinion Z15 M5.5	1
3	8.0.9.00026	Roller Bearing 30207 (35x72x18.25)	1
4	8.7.3.00055	Oil Seal (35x72x10)	2
5	0.347.3001.00	Through Shaft 1”3/8 Z6 -1”3/8 Z21	1
6	8.5.2.00131	Snap Ring (72x75x2.5 , For Shafts)	2
7	0.248.7500.00	Shim Kit (60.3x71.7)	2
8	8.5.1.00680	Snap Ring (40x37.5x2.5)	1
9	0.289.7102.02	Castle Nut (M20x1)	1
10	8.3.2.00531	Flat Washer (21x37x3)	1
11	0.102.7500.00	Shim Kit (30.3x44)	1
12	LF135-2	Flat Washer (25x44x4)	1
13	LF135-1	Castle Nut (M24x2)	1
14	1.135.7100.00	Protective Flat Washer (40.4x79.9x1)	1
15	8.7.1.00748	Dust Lip (40x80x12)	1

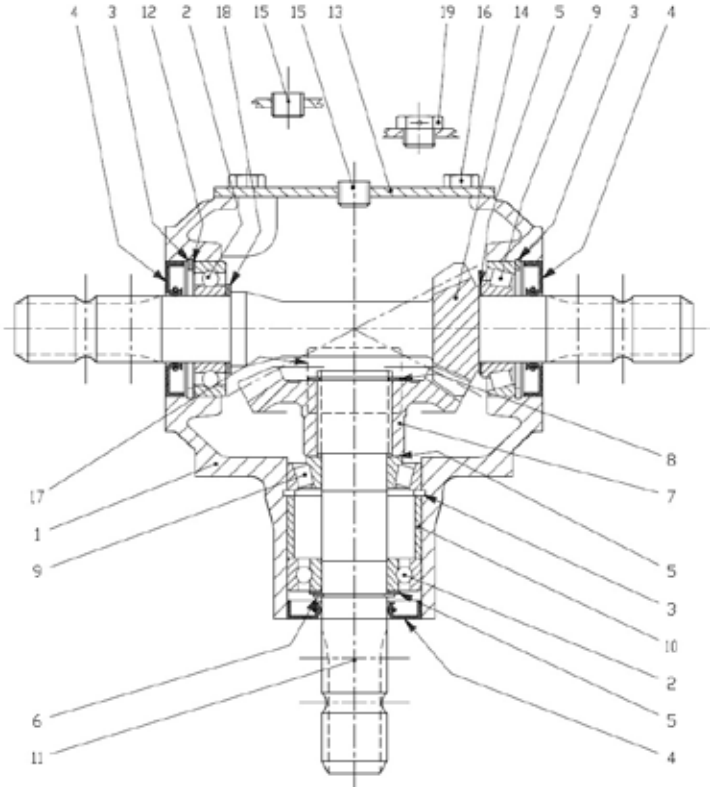
Item	Part No	Description	Qty
16	8.0.9.01049	Roller Bearing 30306 (30x72x20.75)	1
17	8.0.9.00024	Roller Bearing 30208 (40x80x19.75)	1
18	U0.040.3006.01	Output Shaft ASA D.P. 8/16 Z12	1
19	U0.040.6004.00	Gear Crown Z22 M5.5	1
20	8.0.1.00870	Ball Bearing 6207 (35x72x17)	1
21	0.259.7527.00	Shim (35.3x48x2.5)	1
22	8.5.3.00955	Snap Ring SB 81 (81x82.8x2)	1
23	0.205.7100.00	“Major” Name Plate	1
24	8.4.7.00823	Cotter Pin (4x40)	1
25	0.347.1300.00	Top cover	1
26	8.1.1.00061	Bolt M10x25 HHB (8.8)	4
27	8.6.6.00088	1/2” Gas Solid Plug	1
28	8.6.6.00201	3/8” Gas Oil Level Plug	1
251	8.6.7.00269	1/2” Gas Oil Breather Plug	1
252	8.4.7.00516	Cotter Pin (5x50)	1

T292006 Gearbox breakdown



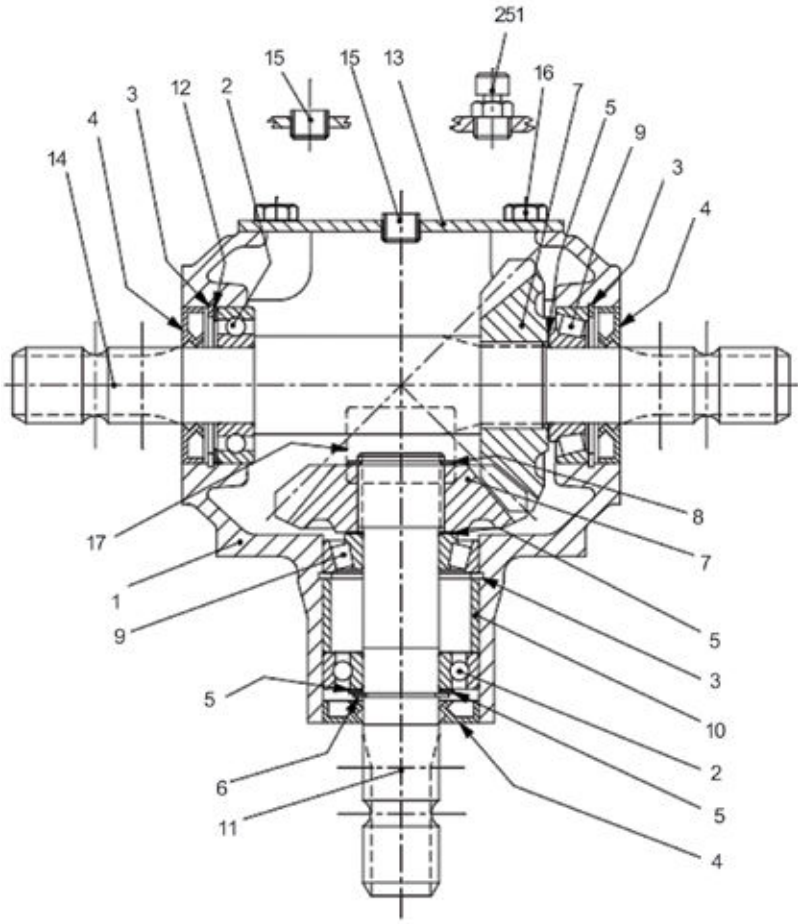
Item	Part No	Description	Qty
1	0.292.3000.00	SHAFT 1”3/8 Z6	1
2	8.7.3.00081	OIL SEAL 35X80X10	2
3	8.5.2.01370	SNAP RING 80 UNI7438	2
4	0.110.7500.00	SHIM 79,7	2
5	8.0.9.00129	BEARING 30307	2
6	8.6.5.00006	PLUG 3/8”GAS	4
7	0.292.0301.00	CASING	1
8	0.278.7103.00	NUT M40X1.5	1
9	0.272.6000.00	Pinion Z15 M6 3.5	1
10	0.272.5000.00	CROWN WHEEL Z28 M.6.35	1
11	0.350.7500.00	SHIM 65.3	1
12	8.0.9.00469	BEARING 30210	2
13	8.6.7.00161	OIL FILLER PLUG 3/8”GAS	1
14	0.292.1310.00	EXTENSION	1
15	8.7.3.01296	OIL SEAL 55X90X10	1
16	0.292.2001.00	SHAFT 1”3/8	1
17	8.1.1.00501	BOLT M10X22 8,8	8
18	0.712.7525.00	SHIM 50.3x2.5	1

T27A Gearbox breakdown



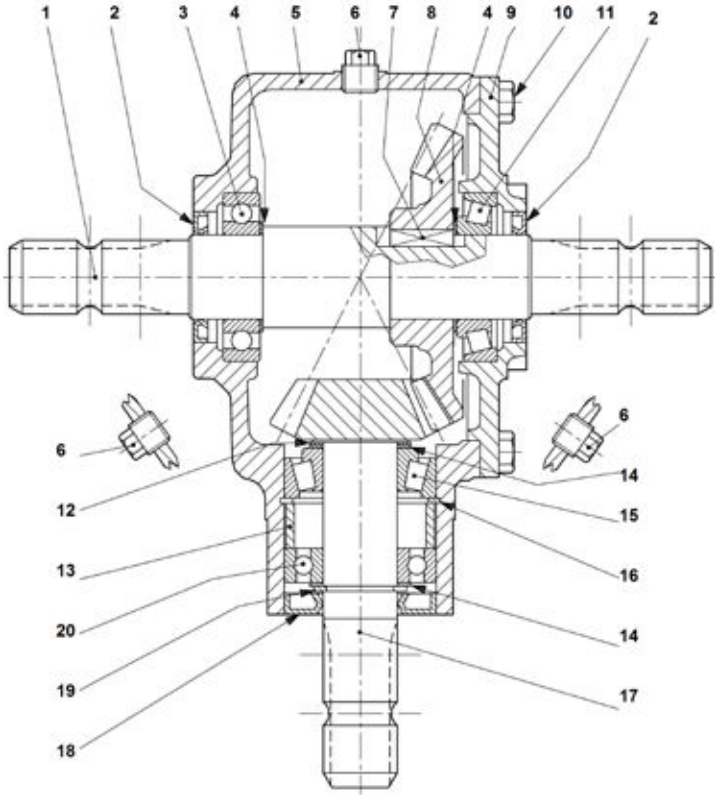
Item	Part No	Description	Qty
1	T27/12	Casing	1
2	T4A/6	Bearing 6207	1
3	T27/2	Snap Ring	1
4	T27/1	Double lip Oil Seal	1
5	T4A/4	SHIM 35.3x48.0	3
6	LF135/7	Snap Ring UNI7435	1
7	T27/9	Gear Z23	1
8	T4A/2	Snap Ring UNI7435	3
9	T27/8	Bearing 30207	2
10	T27/5	Spacer	1
11	T27/6	SHAFT 1 3/8” Z6	1
12	T4A/5	Shim Kit (60.3x71.7)	1
13	T27/13	Cover	1
14	T27/16	Pinion Z17 M5.4	1
15	T4A/10	PLUG 3/8”GAS	2
16	M10x20SZP	Bolts M10x20	
17	N/A	Name Plate	1
18	T4A/5	Shim Kit (60.3x71.7)	1
19	T27/17	Oil Filler Plug	1

T27A1 **Gearbox breakdown**



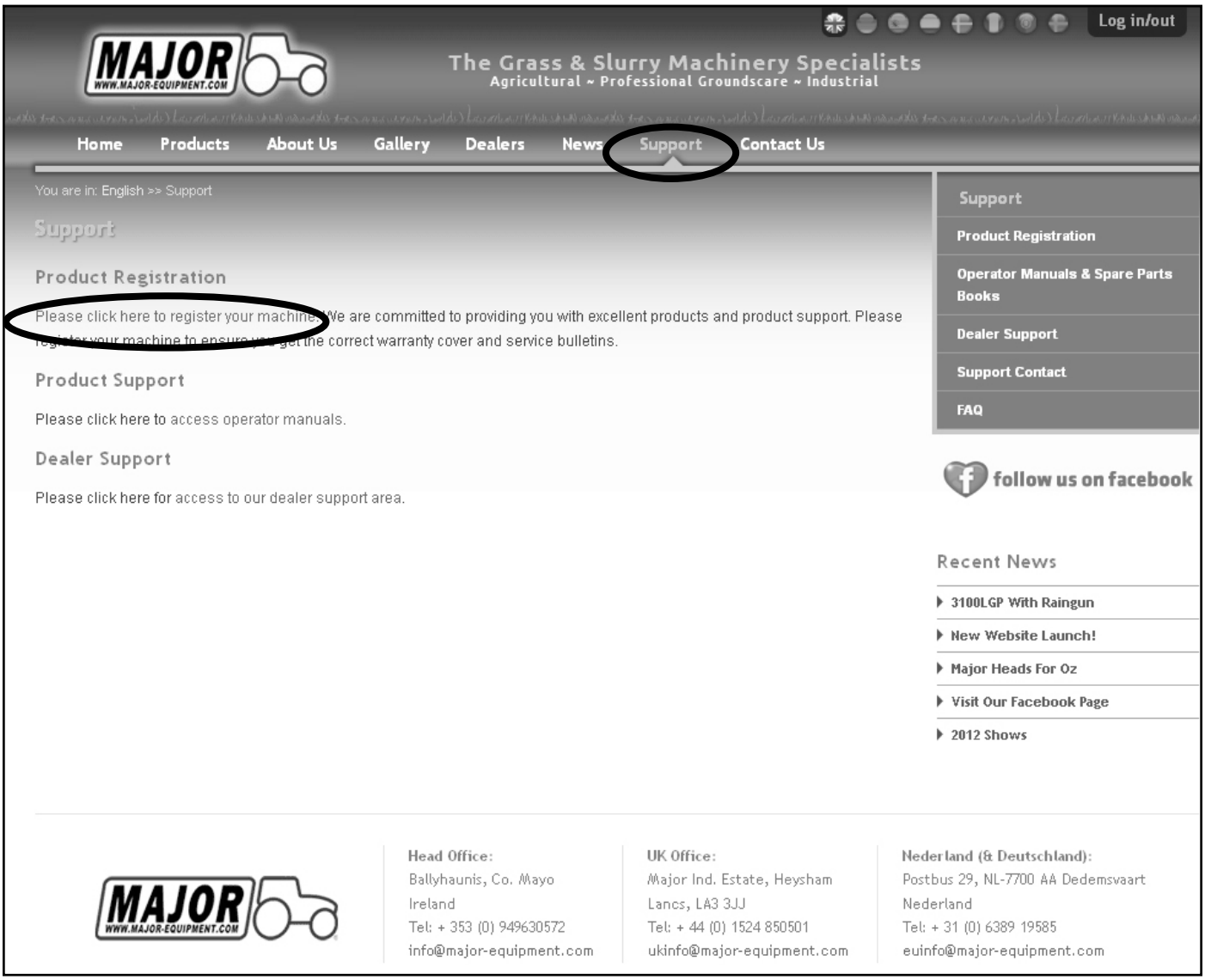
Item	Part No	Description	Qty
1	0.267.0300.00	CASING	1
2	LF135/15	Bearing 6207	2
3	8.5.2.00131	SNAP RING 72 UNI7437	3
4	8.7.1.00152	DOUBLE LIP SEAL 35X72 X10	3
5	T4A/4	SHIM 35.3x48.0	3
6	8.5.1.00005	SNAP RING 35 UNI7435	1
7	0.267.5007.00	GEAR 18 M6.15 C	2
8	8.5.1.00029	SNAP RING UNI7435	1
9	8.0.9.00026	BEARING 30207	2
10	T27/5	SPACER	1
11	T27/6	SHAFT 1 3/8” Z6	1
12	T4A/5	SHIM 71.7	1
13	0.267.1302.00	COVER	1
14	0.267.3005.00	SHAFT 1 3/8” Z6	1
15	LF135/13	PLUG 3/8”GAS	2
16	M10x20SZP	Bolts M10x20	4
17	0.124.7101.00	PLATE	1
251	8.6.7.00161	OIL FILLER PLUG 3/8”GAS	1

T304A **Gearbox breakdown**



Item	Part No	Description	Qty
1	T304A/15	Shaft	1
2	T4A/12	Oil Seal	2
3	T4A/13	Bearing 6208	1
4	LF135/8	Shim	2
5	T304A/11	Casing	1
6	LF135/13	Plug	3
7	T304A/16	Parallel Key	1
8	T4A/17	Gear Z29	1
9	T304A/20	Cover	1
10	T4A/21	Bolt M12x25B	6
11	T4A/18	Bearing 30208	1
12	T4A/4	SHIM 35.3x48.0	2
13	T304A/7	Spacer	1
14	T4A/5	Shim Kit (60.3x71.7)	1
15	T4A/8	Bearing 32207	1
16	T4A/3	Snap Ring	1
17	T304A/9	Pinion Shaft Z15 M5	1
18	T4A/1	Oil Seal 25x72x10	1
19	T4A/19	Gasket	1
20	T4A/6	Bearing 6207	1
21	T4A/2	Snap Ring UNI7435	1

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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