



# **ROTARY TILLER "T" SERIES**

**STARTING WITH SERIAL NOS:**

**T230-CT - s/n 4084665002**

**T280-CT - s/n 4085848001**

**T305-CT - s/n 4085846001**

**T355-CT - s/n 4085849001**

## **Operation, Service & Parts Manual**

**NOW FEATURING THE NEW 160 H.P. SICMA GEARBOX**



Carefully read this manual  
before using the machine

**OCTOBER 2016**

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## INTRODUCTION

No part of this manual shall be reproduced, copied or disseminated by any means, without manufacturer prior authorization in writing.

Gearmore reserves the right to make any necessary changes without giving prior notice, in order to optimize the quality and safety features and does not commit itself to updating this manual every time a change is made.

This booklet provides a thorough and accurate description of the instruction and maintenance activities to be carried out on the tiller you purchased. We congratulate you on your choice and urge you to thoroughly familiarize yourself with and follow the instructions contained in this manual. This will assure you a long, safe and trouble free working life for your tiller.

**Gearmore shall not assume any responsibility should problems arise as a result of lack of compliance with the instructions and/or operator's negligence.**

The manual is divided in chapters and paragraphs and the pages are numbered, thus offering accurate and precise information.

NAME: \_\_\_\_\_

PURCHASED FROM: \_\_\_\_\_

DATE OF PURCHASE: \_\_\_\_\_

MODEL NUMBER: \_\_\_\_\_

SERIAL NUMBER: \_\_\_\_\_

## GENERAL INFORMATION

### GENERAL INFORMATION

#### APPLICATION

The T Series Rotary Tillers are designed to till soil for seedbed or planting preparation. The T Series Tillers are adapted for tractors with 540 and 1000 rpm PTO speeds and Category 2, 3-point hitch tractors up to 160 HP.

#### SYMBOLS

This booklet contains three "safety pictograms" which highlight the relevant danger levels or important information:



**Danger**

It draws the operator's attention to special situations which may jeopardize people's safety.

---



**Caution**

It draws the attention to situations which unfavorably affect the machine efficiency, but not people's safety.

---



**Important**

It is used for general information, when people's safety or the efficiency of the parts are not at risk.

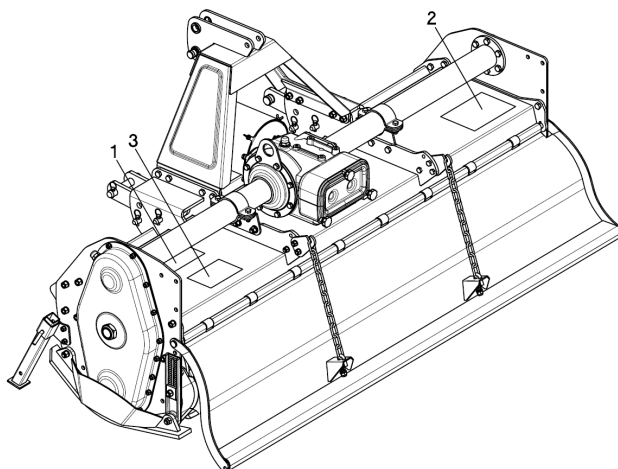
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# GENERAL INFORMATION

## SAFETY LABELS

The safety labels and information on the machine (labels 1, 2 and 3), must be complied with. Failure to comply with these warnings may result in severe injuries or even death. Make sure that the labels are always present and legible; should this not be the case, contact your nearest Gearmore dealer to request replacements.



**1**

**⚠ DANGER**

1. MAKE SURE DRIVELINES ARE OF THE CORRECT LENGTH AND PROPERLY CONNECTED. DRIVELINE SEPARATION AND/OR PTO STUB SHAFT FAILURE CAN CAUSE INJURY OR DEATH. (See Operator's Manual for procedure)

2. MAKE SURE THAT DRIVELINE SHIELDS ARE INSTALLED CORRECTLY AND TURN FREELY TO AVOID INJURY OR DEATH FROM ENTANGLEMENT.

3. MAKE SURE THAT DRIVELINE IS INSTALLED CORRECTLY ON TRACTOR PTO SHAFT. MOVE YOKE BACK AND FORTH UNTIL LOCKING COLLAR CLICKS FORWARD AND LOCKS YOKE IN PLACE.

4. 540 PTO RPM UNLESS SPECIFICALLY MARKED OTHERWISE.

4781001

**3**

**⚠ WARNING**

SHIELDS AND DEFLECTORS MAINTAINED IN BAD CONDITION MAY CAUSE INJURY OR DEATH FROM ENTANGLEMENT WITH ROTATING PARTS, BEING HIT BY OBJECTS THROWN WITH GREAT FORCE BY BLADES, OR BY BLADE CONTACT.

- Always replace Guards which have been removed for maintenance. Never operate with guard missing or broken.
- Chain Guards, Gearbox, Drivelines Shields, eventual Rubber-fabric Deflectors, and solid band enclosures are subject to wear and lost or broken parts must be replaced or repaired as soon as damage is found.
- Safety shielding must be installed and in good condition to avoid the possibility of thrown objects when the machine is operated in any area where thrown objects could cause injury.

4781006

**2**

**⚠ DANGER**

FAILING TO FOLLOW SAFETY MESSAGES AND OPERATING INSTRUCTIONS CAN CAUSE SERIOUS BODILY INJURY OR EVEN DEATH TO OPERATOR AND OTHERS IN THE AREA.

1. READ OPERATOR'S MANUAL CAREFULLY AND PAY ATTENTION TO SAFETY DECALS FOR TRACTOR AND TILLER THOROUGHLY TO AVOID MISUSE, ABUSE, AND ACCIDENTS. PRACTICE BEFORE OPERATING.
2. OPERATE ONLY WITH ROPS AND FASTEN SEAT BELT TO AVOID INJURY AND POSSIBLE CRUSHING DEATH FROM OVERTURN. ALLOW NO RIDERS ON TRACTOR OR TILLER. FALLING OFF CAN CAUSE SERIOUS INJURY OR DEATH BY BEING RUN OVER BY TRACTOR OR TILLER OR BY BEING CUT BY THE ROTATING TILLER BLADES. ALLOW NO CHILDREN ON OR NEAR TILLER OR TRACTOR.
3. TO AVOID INJURY FROM FALLING OBJECTS WEAR HARD HAT, SAFETY GLASSES AND SHOES.
4. BLOCK UP OR SUPPORT MACHINE SEVERELY BEFORE PUTTING HANDS OR FEET UNDER, OR WORKING UNDERNEATH LIFTED PARTS TO AVOID CRUSHING INJURY OR EVEN DEATH FROM SUDDEN, INADVERTENT DROPPING. MAKING SURE AREA IS CLEAR BEFORE LOWERING.
5. BEFORE TRANSPORTING, PUT LIFT LEVER IN LIFT (DETENT) POSITION AND FOLLOW TRAFFIC CODES. SLOW DOWN AT NIGHT, IN TURNS, & ON HILLSIDES.
6. MAKE SURE THAT SMV SIGN, WARNING LIGHTS, AND REFLECTORS ARE CLEARLY VISIBLE.
7. NEVER OPERATE WITH TILLER RAISED OF GROUND TO REDUCE POSSIBILITY OF INJURY FROM OBJECTS THROWN UNDER TILLER STRUCTURE.
8. BEFORE DISMOUNTING, SECURE TILLER IN TRANSPORT POSITION OR LOWER TO GROUND. STOP PTO, PUT TRACTOR IN PARK OR SET BRAKE, STOP ENGINE, AND REMOVE KEY. NEVER MOUNT OR DISMOUNT MOVING VEHICLE TO PREVENT POSSIBLE CRUSHING INJURY OR DEATH.
5. TRANSPORT SAFELY.
6. USE SMV, LIGHTS, & REFLECTORS.
7. DO NOT OPERATE WITH TILLER RAISED.
8. MOUNTING & DISMOUNTING.

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## GENERAL INFORMATION

### TECHNICAL DATA

Model	Tilling Width		HP	Weight (Approx.)		Working Depth (Max.)		Side Drive		Blades (Qty.)	Blades	
	cm	inches		kg	lbs.	cm	Inches	Chain	Gear		Blades/Flange	Shape
T	230	90	90-100	930	2140	25	10		*	60	6	Curved
	280	110	100-120	1110	2205	25	10		*	66	6	Curved
	305	120	120-160	1150	2275	25	10		*	72	6	Curved
	355	140	120-160	1250	2415	25	10		*	84	6	Curved

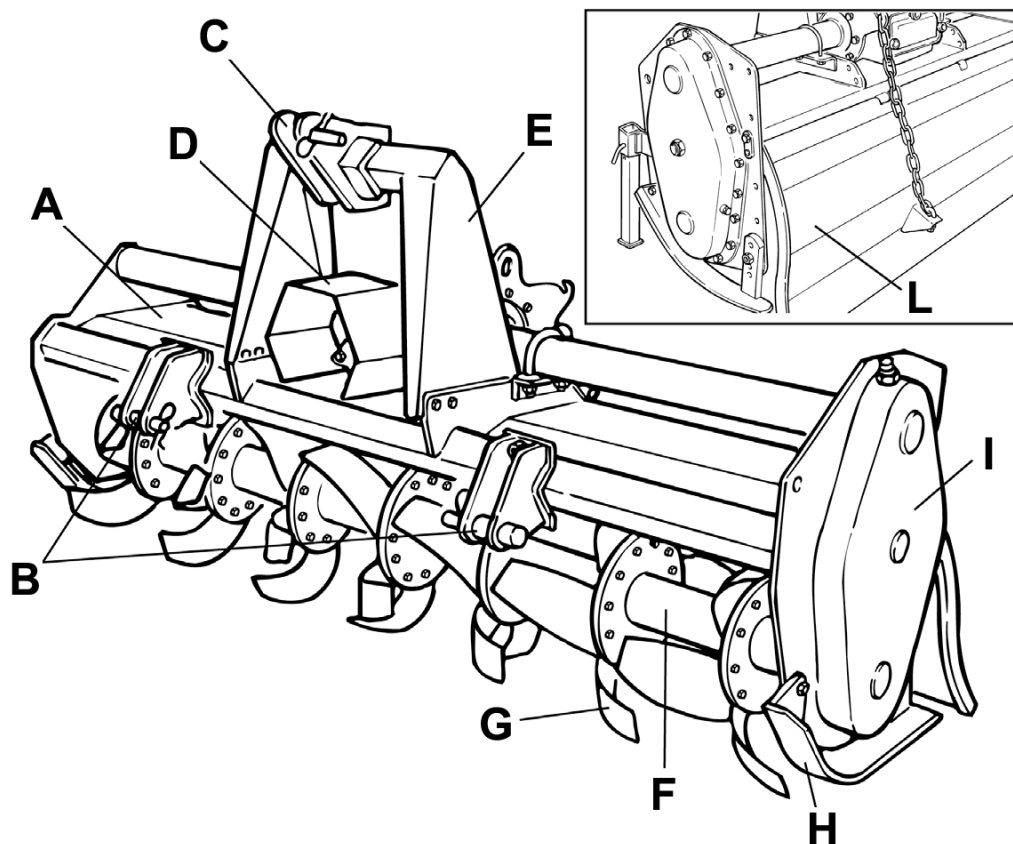


**Important**

*When asking for information or technical service, always specify the machine type and width.*

## GENERAL INFORMATION

### MAIN PARTS TERMINOLOGY



- A) Frame
- B) Lower 3-point hitches
- C) Upper 3-point hitch
- D) Cardan guard
- E) 3-point mast
- F) Rotor
- G) Tines
- H) Side skids
- I) Transmission case
- L) Cover

## GENERAL INFORMATION

### IDENTIFICATION PLATE

An identification plate is placed on each tiller and is structured as follows:

Serial number (sample):



### RECOMMENDED USE

The tillers described in this instruction and maintenance manual, have been designed explicitly to till the land. Any other use jeopardizes the operator's safety and the machine integrity.

### INAPPROPRIATE USE

The tillers shall not be used as follows:

- Connected to vehicles which do not have a suitable power or weight.
- Without being properly installed by securing the hitch brackets to all three points of the tractor lift unit.
- Tilling of extremely stony or unsuitable ground.
- Raising or lifting of the equipment when the power take off is engaged.
- In close proximity to person/s when power is engaged.
- Do not stand or step on the equipment when it is being operated or transported.
- Do not operate the machinery while wearing unsuitable (loose fitting) clothing.

### TORQUE SPECIFICATIONS

For correct hardware tightening on the tiller, we suggest the use of suitable torque wrench and the applicable torque as listed in the table.

M-THREADED SCREW/BOLTS  
Bolt Grade

Thread	8.8		10.9	
	Nm	Lb-ft	Nm	Lb-ft
M6	11	8.5	17	12
M8	28	20	40	30
M10	55	40	80	60
M12	95	70	140	105
M14	150	110	225	165
M16	240	175	305	225
M18	330	250	475	350

## SAFETY

### SAFETY IN THE WORKPLACE

Most of the accidents, which occur while the operator is using the machine or the equipment or carrying out maintenance and repair activities, are caused by the non-compliance with the main safety requirements. Therefore the potential risks must be fully understood and special attention must be paid to the activity which is being executed.

***If potentially dangerous situations are known,  
accidents can be prevented!***

### USER'S REQUIREMENTS

The equipment user must have the following:

Physical: good sight, co-ordination and capability to execute all instructions in a safe manner.

Mental: the users must understand and follow the prescribed norms, rules and safety measures. They must be careful, pay attention to their own safety and the safety of other people and act properly and in a responsible way.

Training: the users must read and understand this manual, its pictures and charts, and the identification and hazard plates. They must be specialized, trained and qualified on any use and maintenance activities.

### WORK CLOTHING

The following clothing and personal protective equipment must be used when working and executing maintenance and repair activities:

- Overalls or any other comfortable outfit; make sure that they are not too loose since they might be caught by moving parts.
- Protective gloves.
- Goggles or mask to protect the eyes and face.
- Safety helmet.
- Safety shoes.



**Important**

***Wear only personal safety accessories in good condition and complying with the rules in force.***

### GENERAL SAFETY NORMS

The features of the area where work is taking place must always be taken into consideration:

- Do not stand in the working radius of the operating machinery or any other machine accessories when the equipment is running.

# SAFETY

## PREPARATION

### ***Preparing For Work:***

- Do not drink alcohol, take drugs, or any other substances which may affect your ability to use the equipment before or when working.
- Make sure that there is sufficient fuel in the tractor to prevent the machine from stopping during work.
- Do not use the equipment under unsafe conditions, e.g. do not make temporary repairs just to start or keep working; do not work at night if the area is not well illuminated.

### ***When working or executing maintenance activities, remember:***

- The labels and stickers providing instructions on the use of the equipment or information on dangers must not be removed or hidden, and must be legible.
- Do not remove the safety devices, covers and safety guards, unless maintenance activities are being carried out. If the safety devices must be removed, turn the engine off, remove them correctly and re-install them before turning the tractor on.
- Do not lubricate, clean or adjust moving parts.
- Use the appropriate tools to execute maintenance or adjustment activities on the equipment.
- Do not use damaged or unsuitable tools, e.g. pliers rather than wrenches etc.
- Prior to carrying out activities on hydraulic lines under pressure, or disconnecting their components, make sure that the line is no longer under pressure and that it does not contain any hot fluids.
- Check all the fittings and make sure that they are well connected before supplying pressure to the hydraulic lines.
- Make sure that no tools, clothes or any other materials are left in areas where moving parts are present when the maintenance and repair activities are completed.
- Do not give directions and make signals at the same time during a maneuver. Maneuver directions and signals must be given from one person only.
- Do not unexpectedly call an operator, if not necessary. Do not startle the operator, e.g. by throwing objects.
- Pay attention to people in the vicinity of the work area, especially children!
- Make sure that nobody is standing in the working range of the equipment.
- Do not use the equipment to lift people.
- When the equipment is not needed, turn the engine off, leave the vehicle on a flat surface, with the first gear and the parking brake engaged. Disengage the power take off.
- Do not execute any cleaning, lubrication, repair or adjustments when the engine is running and the equipment is in the raised position.
- Do not work on steep slopes, if the stability of the vehicle can be jeopardized.

***Manufacturer shall not assume any responsibilities if these instructions are not strictly followed.***



## ATTACHMENT TO THE TRACTOR

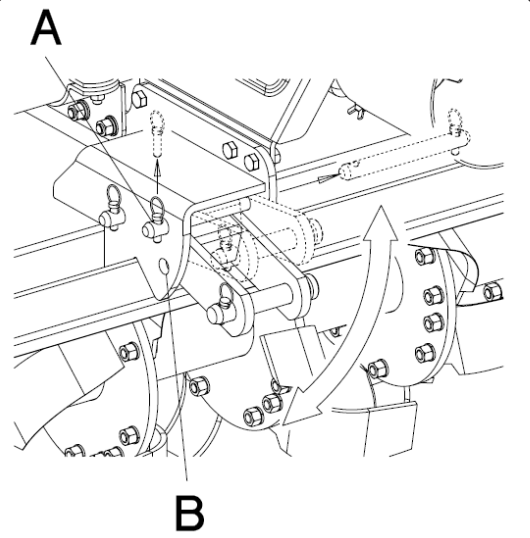
This tiller may be attached to any tractor equipped with a Cat. 2, 3-point hitch with suitable ball ends. Before attaching the equipment to the tractor, set both on flat and smooth ground and make sure that nobody is standing between them.

### 3-POINT CATEGORY 2 HITCH

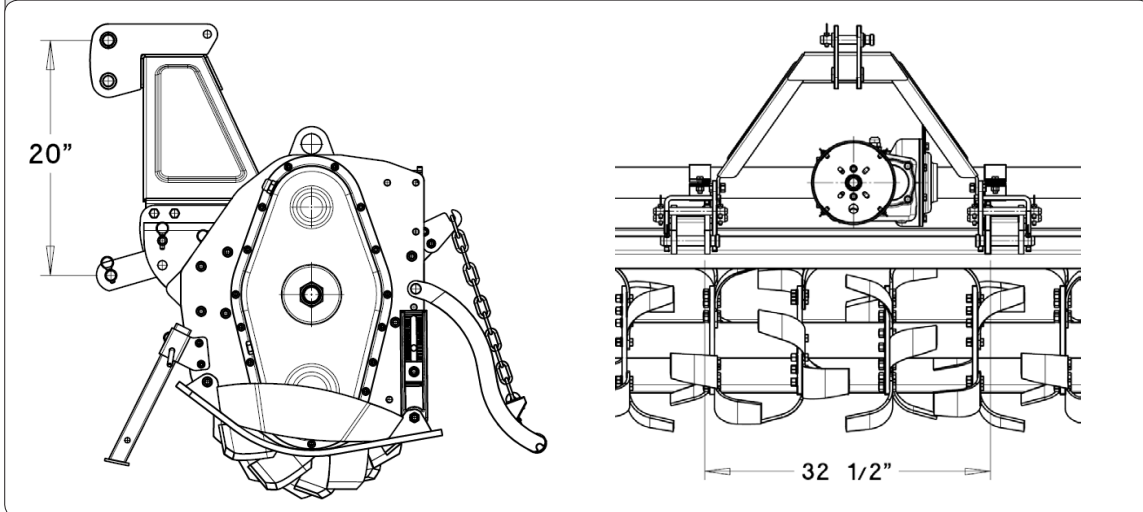
To connect the tiller to the tractor's Cat. 2, 3-point hitch, do the following operations:

- 1) Put the floating brackets in the lower position inserting the pin A in the upper hole as shown in **(picture 1)**; this gives you the standard A.S.A.E. vertical dimension of 20" **(picture 2)**. The horizontal distance between the brackets is 32 1/2".

Picture 1



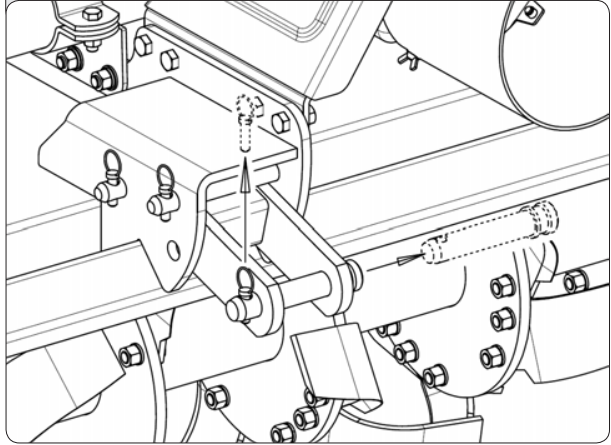
Picture 2



## SET-UP

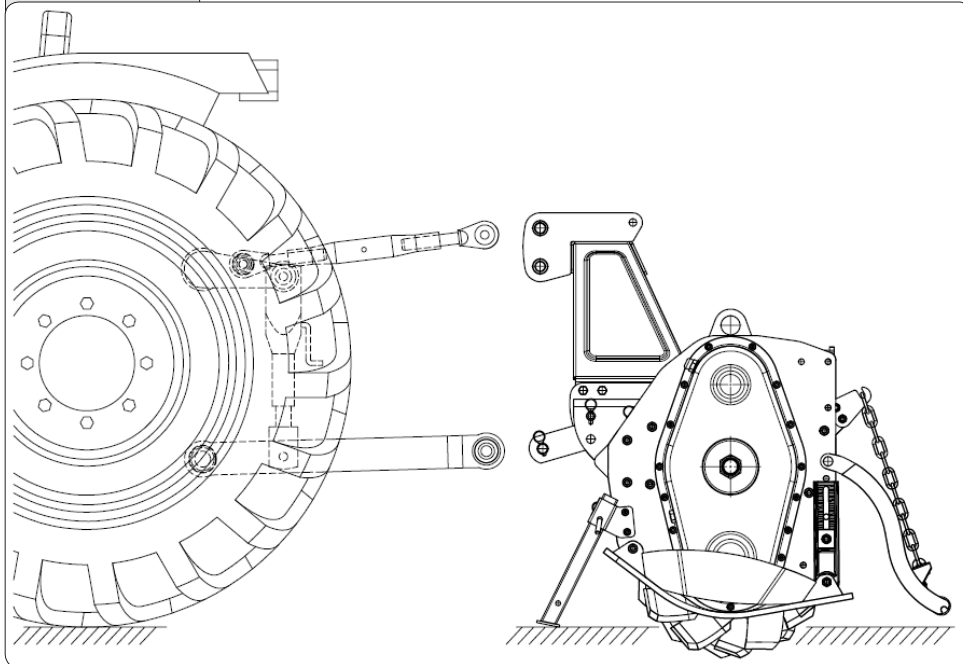
- 2) Remove the cotter pins from the hitch pins (**picture 3**);
- 3) Remove the lower hitch pins from the lower hitch blocks (**picture 3**);

Picture 3



- 4) Before attaching the equipment to the tractor, make sure that the ground is smooth and flat and that nobody is standing between the tractor and the tiller; slowly move the tractor towards the tiller by aligning the tractor lifter arms with the blocks' holes (**picture 4**); turn the engine off and pull the brake;

Picture 4



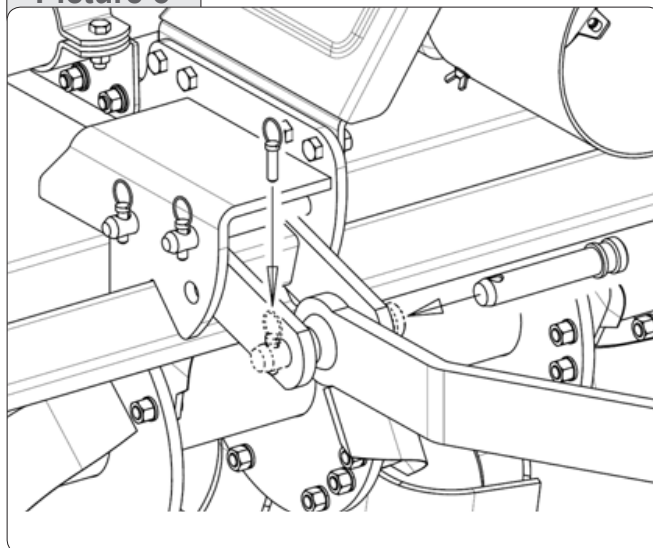


## SET-UP

- 5) Insert the lower hitch pins through the hitch blocks and ball ends (*picture 5*);

- 6) Secure them by means of the cotter pins which were previously removed (*picture 5*);

**Picture 5**



- 7) Connect the tractor top link to the third upper point by removing the pin located between the two plates, inserting the top link and securing it by means of the cotter pin. Shift the parking stand in the upper position .
- 8) Adjust the top link so that the upper part of the frame is parallel to the ground. Block all the linking parts by means of the sway chains or arms.
- 9) Make sure that the central unit axis (case/bevel gear pair) is parallel to the ground, thus minimizing the stresses on the power take off and increasing the working life of the equipment.



### Caution

*After executing all the above mentioned activities, make sure that all the nuts and bolts are tightened.*

## SET-UP

### PTO SHAFT CONNECTION

Before installing the PTO shaft make sure that the RPM rating and the direction of rotation match those of the tractor. Carefully read the PTO shaft and tractor instructions.

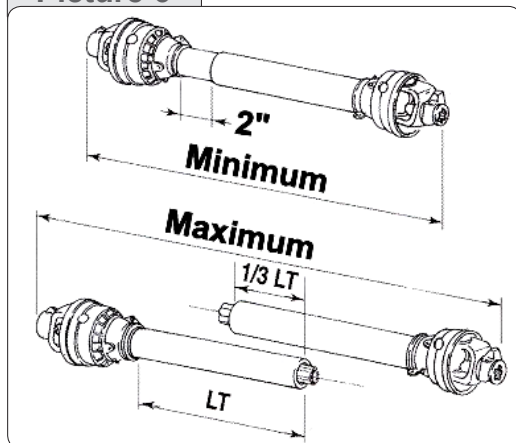
Furthermore, accurately read the instructions of the manufacturer of the PTO shaft and of the tractor.

Before starting any activity, make sure that the guards are installed on the power take off of the tractor and PTO shaft. Make sure that they cover the PTO shaft throughout its length.

#### **Caution**

*When fully extended, the plastic pipes must overlap by at least 1/3 of the length of the pipes (LT). When retracted, the minimum acceptable clearance is 2" (picture 6).*

**Picture 6**



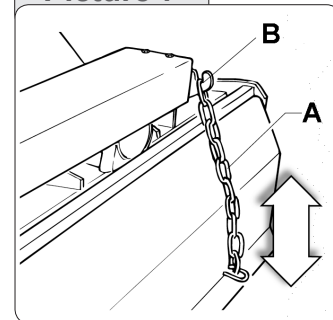
Check that the PTO shaft minimum and maximum length are within the parameters of the machine tractor coupling.

Should problems arise, contact your dealer. After the installation, anchor the PTO shield to the tractor and machine using the special chains; make sure that it turns smoothly. If the PTO shaft is equipped with safety devices, e.g. torque limiters or free-wheel devices, install them on the operative machine side. For the use and maintenance of the PTO shaft, please refer to the relevant manual.

### COVER ADJUSTMENT

The rear cover can be adjusted in height to better compact the ground and make it flat. The adjustment can be made by releasing chain A (picture 7) from upper hook B and inserting it back to the needed height.

**Picture 7**



#### **Danger**

*These operations shall be made only on working ground and only after having stopped the engine, disengaged the power takeoff and pulled the parking brake. If necessary, lift the machine from the ground but, in order to avoid risks for people, place it on supports thus preventing any injuries that might be caused by its sudden fall.*

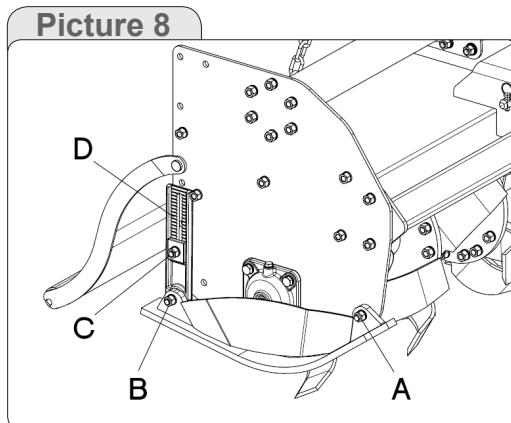
## SET-UP

### WORKING DEPTH ADJUSTMENT

The working depth of the equipment depends on the position of the lateral skids. If the skids are raised, the working depth increases; if the skids are lowered, the working depth decreases.

To adjust the working depth, loosen nut A, B, and C (**picture 8**) and adjust the skid height according to the notches D.

When the adjustment is completed, tighten the screws to the correct torque, according to the values suggest in Torque Specifications, page 5.



**IMPORTANT:** Make sure that the skids are set at the same height on both sides.



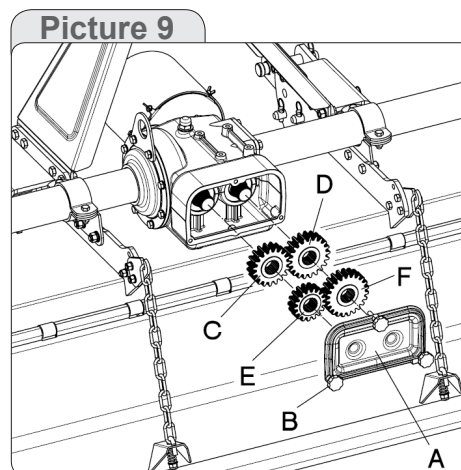
**Danger**

*These operations shall be made only on working ground and only after having stopped the engine, disengaged the power takeoff and pulled the parking brake. If necessary, lift the machine from the ground but, in order to avoid risks for people, place it on supports thus preventing any injuries that might be caused by its sudden fall.*

### SPEED GEAR SETUP

The Series T gearbox is provided with two pair of gears. By changing their relative position 4 different rotor speeds are achieved. Choose the desired rotor speed and follow the instructions below:

- 1) Drain the oil from the gearbox;
- 2) Remove the cover A unscrewing the lobe knobs B (*see picture 9*).



## SET-UP

3) Change the position of the gears C and D according to the following table:

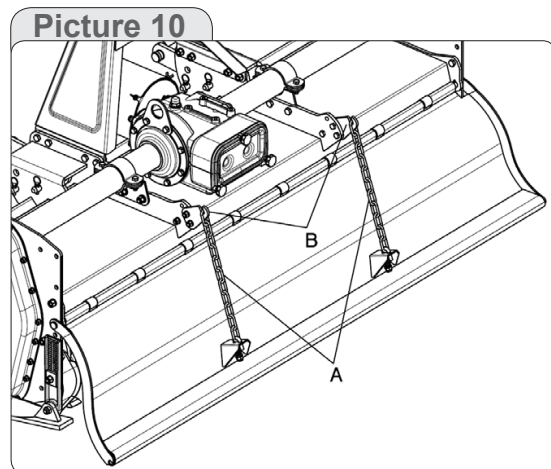
Setting	C Gear	D Gear	Rotor Speed	PTO Speed
1	17 Teeth	21 Teeth	207 RPM	540
2	16 Teeth	22 Teeth	230 RPM	540
3	22 Teeth	16 Teeth	225 RPM	1000
4	21 Teeth	17 Teeth	251 RPM	1000

4) Fix the remaining gears E and F on the suitable pins on the internal face of the cover;

5) Put back the cover in its position, tighten the screws, and fill with oil.

### LEVELING BOARD ADJUSTMENT

The rear leveling board can be adjusted in height to better compact the ground and make it flat. The adjustment can be made by releasing chains A (*picture 10*) from upper hooks B and inserting them back to the desired height.



## MAINTENANCE



### Danger

*These activities must be carried out with the engine off, the power take off disengaged and the hand brake applied. If needed, lift the equipment and place it on supports, thus preventing any injuries that might be caused by a sudden fall of the equipment.*

### START UP

After carrying out these adjustments, the equipment is ready for use. When at the working area, do not start the power take off with the tiller in working position in the ground. Be sure to lift it by a few centimeters using the tractor lift. Start the engine, engage the power take off, lower the equipment to its working position and start.

### ROAD TRANSPORT

With reference to road transport, follow local traffic regulations.

### SHUT DOWN

The following activities are recommended if the tiller will not be used for a long period of time:

1. Clean and dry the equipment.
2. Inspect the equipment and replace the damaged or worn parts if necessary.
3. Tighten all the screws and nuts.

Lubricate and cover the machine with a tarpaulin and store it in a dry place.

## MAINTENANCE

Maintenance is crucial for the working life and efficiency of any agricultural equipment. If the equipment is properly maintained and operated, a long working life and operator safety are assured.

The maintenance intervals indicated in this booklet are provided as a mere reference and are related to normal working conditions; changes may occur depending on the type of activities, environmental dust, seasonal factors, etc.



### Caution

- Before injecting lubricating grease into the grease fittings, clean the fittings to prevent mud, dust, or any other foreign matter from contaminating the grease and reducing the lubrication effect.
- When adding or changing the oil, use the same type of oil to prevent mixing oils with different features.
- All maintenance activities must be carried out with the tiller resting horizontally on the ground.
- After using the equipment for a few hours, make sure that all the bolts (especially tine bolts) are tightened; regularly check all the machine guards.

### FIRST CHECK

- After 50 working hours, change the oil in the gearbox and make sure that all the screws and bolts are tightened.

# MAINTENANCE

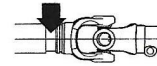
## EVERY 8 WORKING HOURS

- Grease the PTO shaft crosses.

20h

## EVERY 20 WORKING HOURS

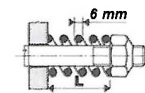
- Grease the PTO shaft inner drive tube.



Inner tube  
Tube intérieure

## EVERY 50 WORKING HOURS

- Check the oil level in the external rotor bearing through the inspection plug B. If needed remove the plug A and add SAE EP 80W90 oil (**picture 11**).
- Check the oil level in the case/bevel gear pair by removing gearbox's upper oil plug (A - **picture 12**); oil level should be contained between the 2 nicks of MIN & MAX of the dip stick oil plug (B - **picture 11**). If needed add SAE EP 80W90 oil.
- Check the oil level in the side transmission (A - **picture 13**). If needed add SAE EP 80W90 oil.
- Make sure that all the screws and bolts, especially on the blades, are tightened.
- Check slip-clutch spring tension (1500 Nm).



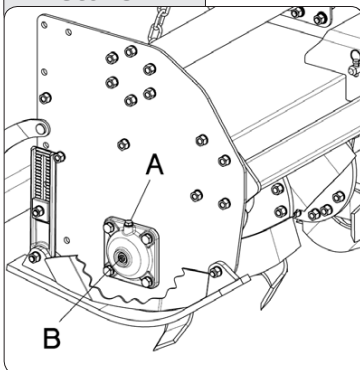
WORKING LENGTH mm (in.)

SPRING HEIGHT FF-4	
	Nm
L=29.5 (1.161")	---
L=29.0 (1.142")	1200
L=28.5 (1.122")	1500
L=28.0 (1.102")	1820
L=27.5 (1.083")	---
L=27.0 (1.063")	---
L=26.5 (1.043")	---

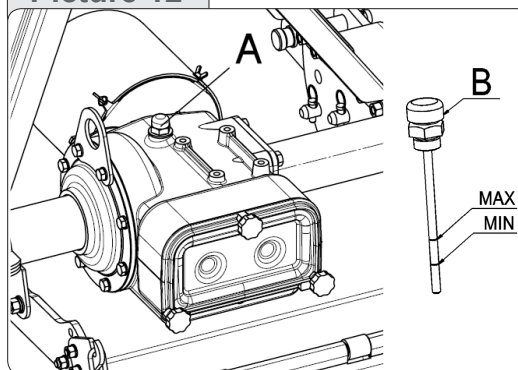
## EVERY 500 WORKING HOURS

- Change the oil of the case/bevel gear pair, side transmission and rotor support; use SAE EP 80W90 oil. Contact the closest dealer for this maintenance activity.

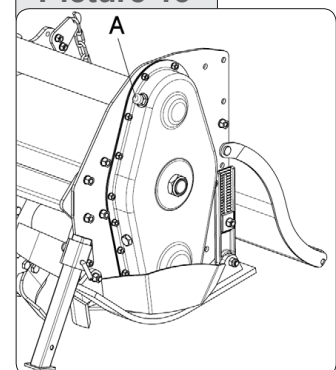
Picture 11



Picture 12



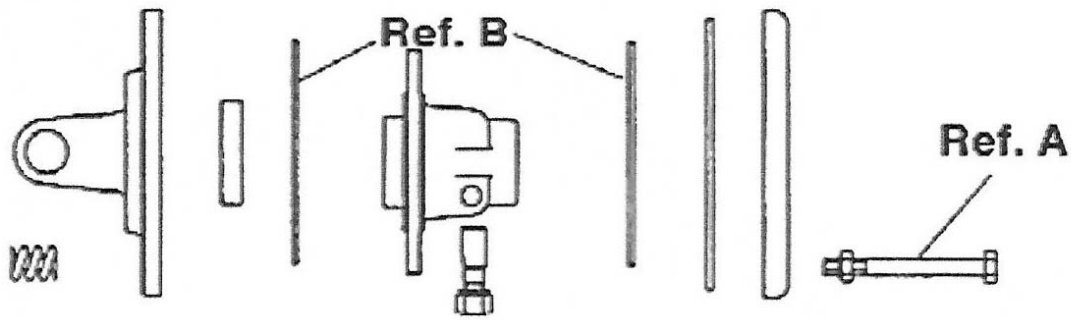
Picture 13



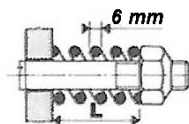
**Caution**

The old oil must be disposed of in compliance with the local laws where these activities are carried out; do not spill or dispose of waste oil on the ground.

## REPLACING CLUTCH LININGS



1. Mount clutch assembly in vise.
2. Remove all bolts and nuts (**Ref. A**).
3. Disassemble all components.
4. Check the condition of all parts, friction plates especially.
5. Replace clutch linings (**Ref. B**).
6. Reassemble the components, install spring with their corresponding bolts and nuts.
7. Tighten nuts following an alternating cross pattern until reaching a height of 28.5 mm (1.122").
8. Check that the height is the same for all springs.
9. Reinstall driveline, making sure all shields are in place.



WORKING LENGTH mm (in.)	
SPRING HEIGHT	
FF-4	
	Nm
L=29.5 (1.161")	---
L=29.0 (1.142")	1200
L=28.5 (1.122")	1500
L=28.0 (1.102")	1820
L=27.5 (1.083")	---
L=27.0 (1.063")	---
L=26.5 (1.043")	---



## SPARE PARTS



**Danger**

*The maintenance activities must be carried out with the engine off, the power take off disengaged, the parking brake engaged, and the equipment placed on the ground.*

### BLADES REPLACEMENT

To assure the optimum efficiency of the machine, make sure that the tiller blades are in a good working condition and that their bolts are tightened; replace them if they are broken or bent. The new parts must be installed in the original position.

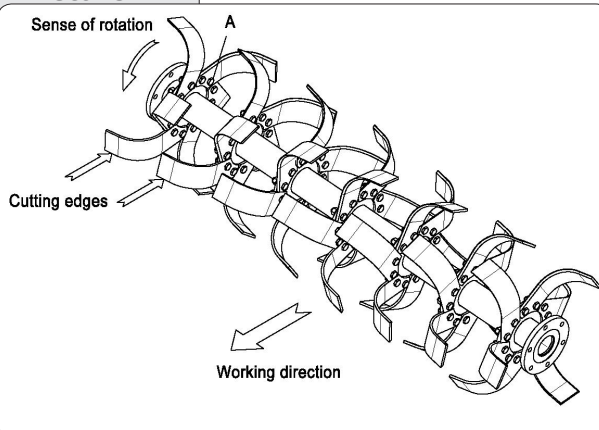


**Danger**

*Before replacing the blades, turn the tractor engine off, pull the parking brake, disengage the power take off, raise the tiller using the tractor lift, and install supports to prevent accidental dropping of the machine.*

Pay special attention to the bolts A on the blades (**picture 14**): the screw head must be placed on the blade side, with the washer and the nut on the flange side, so that the bolts cannot loosen while the equipment is being used. When several blades must be replaced, replace one blade at a time, so that the initial helical layout is maintained.

**Picture 14**



We are now featuring Bonded Tungsten Coated Tines as standard equipment, which has 3 + times the life of non-coated tines.

### HOW TO ORDER SPARE PARTS

For spare parts requests please refer to our spare parts catalog.

The spare parts can be ordered from the dealer or service center. The following data must always be specified:

- Equipment type and width.
- Part number of the requested component. If the code number is missing, indicate the table number in which it is shown and the relevant reference.
- Description of the part and requested quantity.
- Requested type of transport. Should this information not be provided, the dealer or service center shall not be responsible for delays caused by circumstances beyond their control. The addressee shall be responsible for any transport charges.

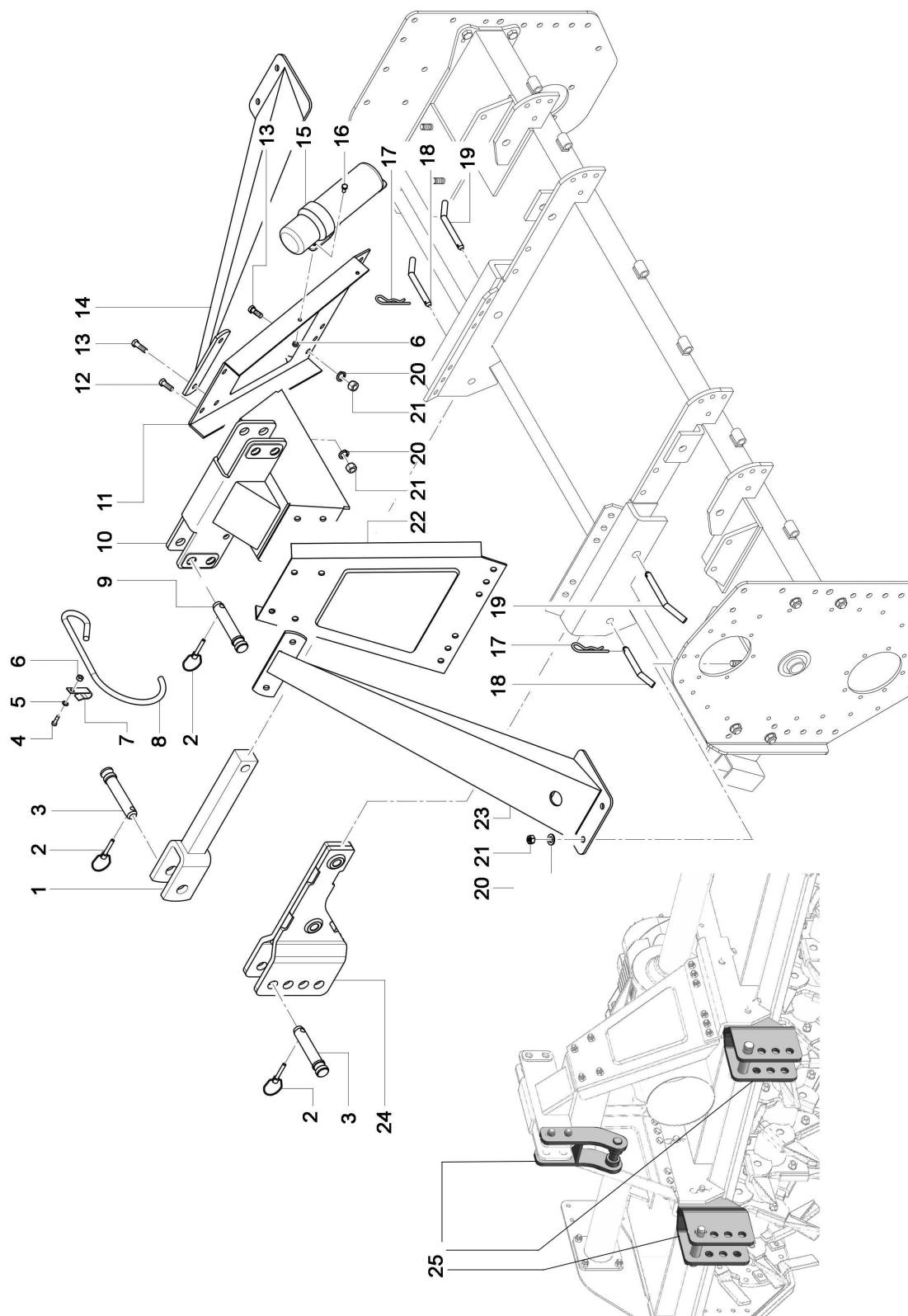


## TROUBLESHOOTING CHART

PROBLEM	CAUSE	SOLUTION
Excessive vibration	Drive shaft damaged	Replace worn drive shaft
	Tines broken off	Replace damaged tines
	Bent rotor shaft	Replace rotor shaft
Rotor shaft does not turn	PTO Clutch slipping	Check slip clutch adjustment
		Replace clutch discs
Tilling deeper on one side	Tractor lower lift arm out of adjustment	Adjust lift arm
	Tiller depth skid not properly adjusted	Adjust skids to level depth
Tiller bouncing	Trying to go too deep on first pass	Raise tiller so tilling 3" deep
	Tractor in too high a gear	Tiller runs smoother in first or second gear
Leaving tire tracks	Tires set out too wide	Set in tractor tires
	Tractor too large	Offset tiller to cover right tire tracks
PTO will not untelescope	Improper lubrication	Separate and grease both halves
	PTO twisted	Replace twisted parts
	Shields damaged	Replace shields

# SPARE PARTS

## TILLER ASSEMBLY - T230, T280, T305 & T355



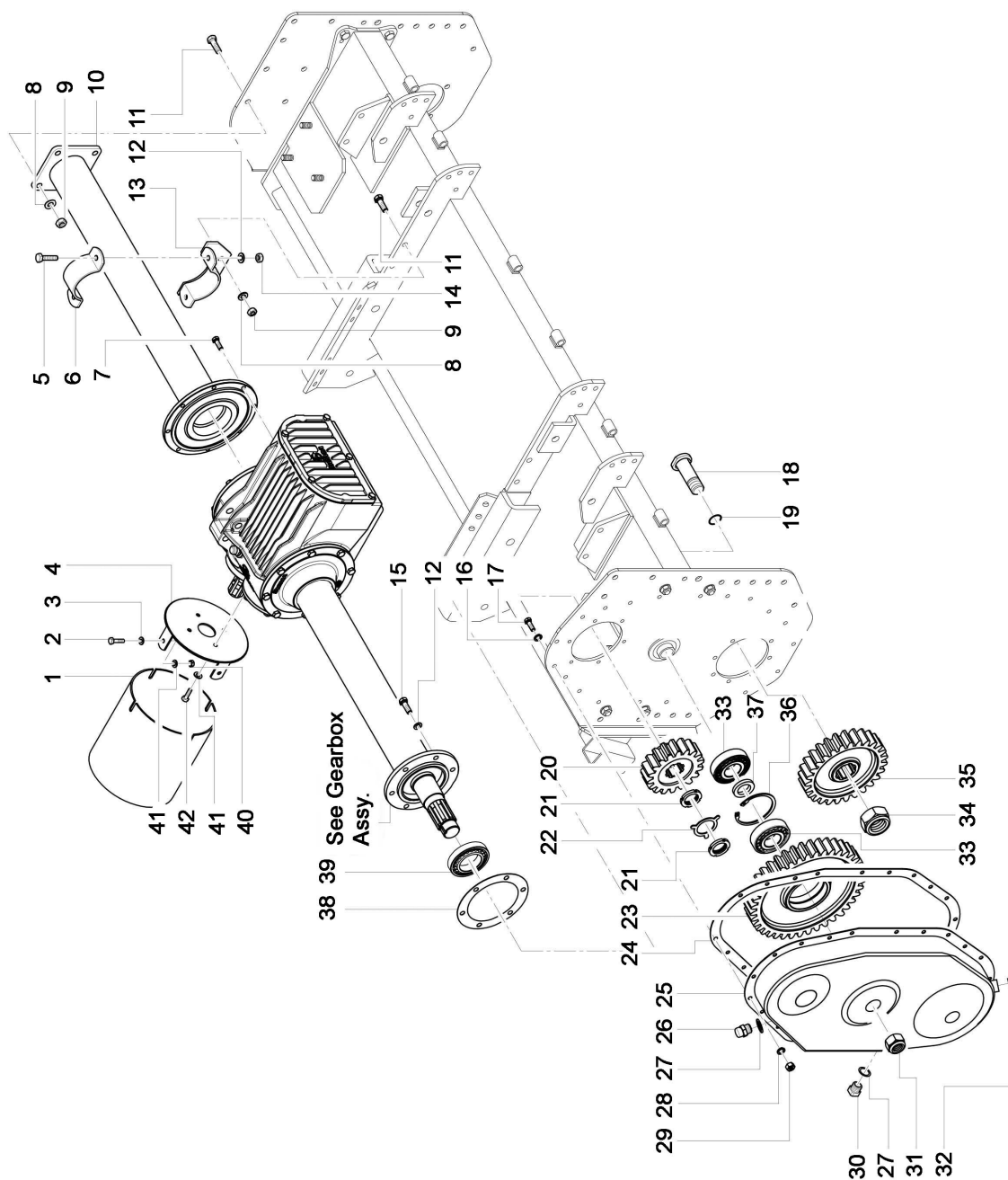
## SPARE PARTS

### TILLER ASSEMBLY - T230, T280, T305 & T355

<u>REF#</u>	<u>QTY.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	2	4004098	3rd Lower Point Arm
2	3	6350010	Shear Pin Ø10
3	2	4304008	3rd Point Pin Ø28 L=143
4	1	3021108016	Screw M8 x 16 UNI 5739
5	1	3625000008	Washer Ø8 UNI 1751
6	5	3414101008	Nut M8 UNI 5587
7	1	5137068	Clip
8	1	4337002	Hook
9	1	5304435	3rd Point Pin D25 L=138
10	1	4004088	3rd Point Upper Plate
11	1	4004096	3rd Point Plate (Right) Flange
12	8	3021114045	Screw M14 x 42 UNI 5739
13	4	3021114040	Screw M14 x 40 UNI 5739
14	1	4004099	Right Side Support T305
14	1	4014017	Right Side Support T355
15	1	6601601	Canister
16	4	3021108020	Screw M8 x 20 x 1.25 UNI 5739
17	4	6351004	Cotter Pin Ø4
18	2	4301589	3rd Point Pin Ø19 L=100
19	2	4301590	Block Pin Ø22 L=95
20	16	3635100014	Washer Ø14 UNI 1751
21	16	3414101014	Nut M14 UNI 5587
22	16	4004097	Left 3rd Point Plate
23	1	4004100	Left Support T305
23	1	4014018	Left Support T355
24	2	4014024	Fixed 3rd Lower Point Arm
25	1	8054013	Cat. 2, Quick Hitch Kit

# SPARE PARTS

## DRIVE ASSEMBLY

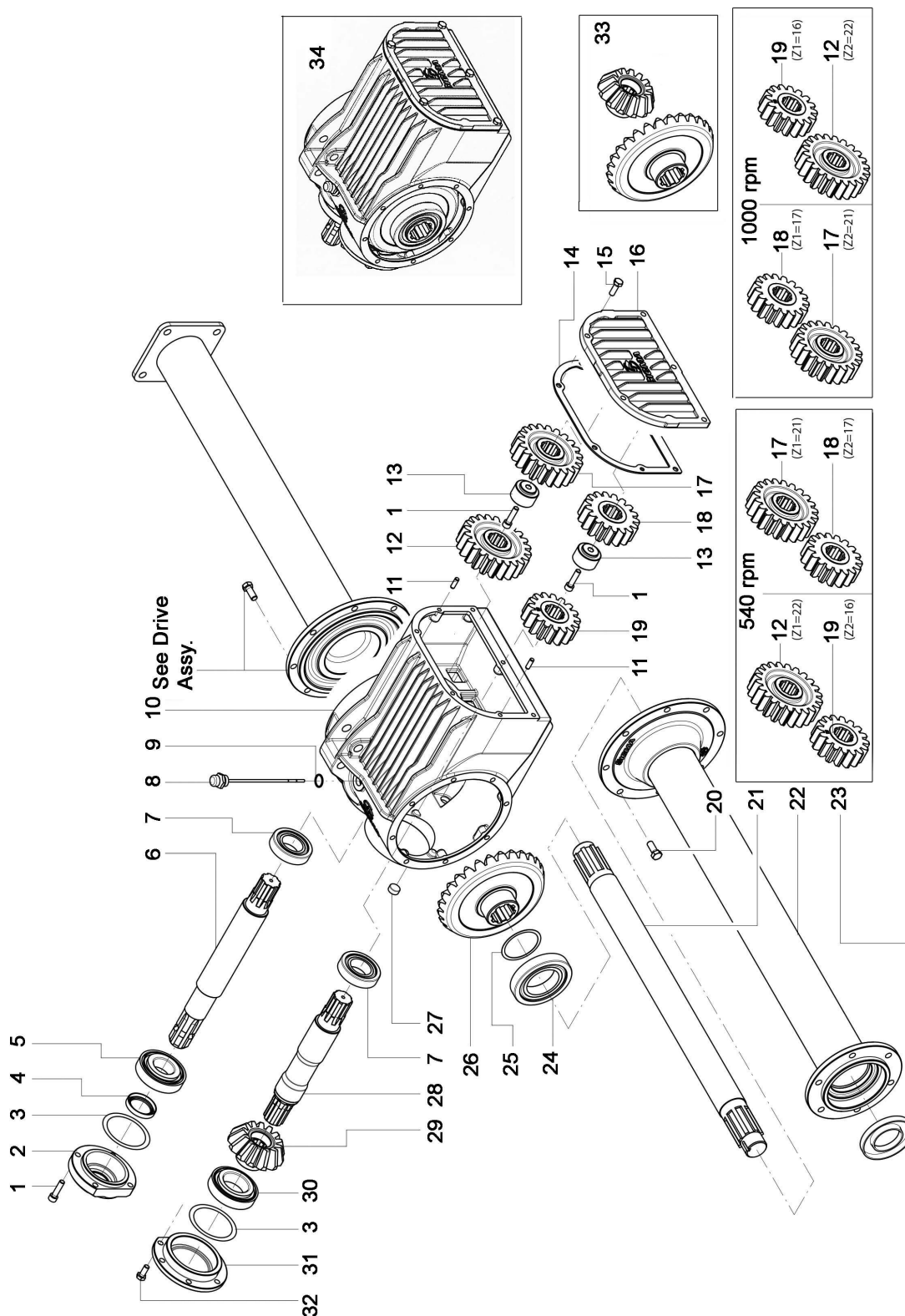


## SPARE PARTS

<u>REF#</u>	<u>QTY.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	1	6654241	Shaft Shield
2	3	3021108020	Screw M8 x 20 x 1.25 UNI 5739
3	3	3625000008	Washer D8 UNI 1751
4	4	4934240	Shaft Shield Support
5	4	3021112035	Screw M12 X 35 X 1.75 UNI 5739
6	2	4834019	U-Bolt
7	8	3021112035	Screw M12 x 35 UNI 5739
8	8	3625000014	Washer D14 UNI 1751
9	8	3414101014	Nut M14 UNI 5587
10	1	4004042	External Side Support T230
10	1	4004043	External Side Support T255
10	1	4004044	External Side Support T280
10	1	4004045	External Side Support T305
10	1	4014015	External Side Support T355
11	8	3021114040	Screw M14 x 40 UNI 5739
12	10	3625000012	Washer D12 UNI 1751
13	2	4004146	Fixing Extensions Support
14	4	3414101012	Nut M12 UNI 5587
15	6	3021112020	Screw M12 x 20 UNI 5739
16	20	3625000010	Washer D10 UNI 1751
17	20	3021110030	Screw M10 x 30 UNI 5739
18	1	4204801	Pin (Intermediate Gear)
19	1	6836220	O-Ring 3.53 x 34.52 x 42
20	1	4724004	Driving Gear Z18
21	2	34008045	Metal Ring "KM" M45 x 1.5 DIN 981
22	1	3950045	Washer D45 DIN 5406
23	1	4724002	Intermediate Gear Z=40
24	1	4784116	Gasket
25	1	4004121	Cover
26	1	3442022	Oil Plug M22 x 1.5
27	2	6470122	Seal Washer Ø22
28	20	3625000010	Washer D10 UNI 1751
29	20	3414101010	Nut M10 UNI 5587
30	1	3444022	Plug M22 x 1.5
31	1	3474102033	Self Locking Nut M33
32	1	3441022	Plug M22 x 1.5
33	2	2030310	Bearing 30310
34	1	34127050	Self Locking Nut M50
35	1	4724003	Driven Gear Z=27
36	1	6310110	Circlip I D110
37	1	4594122	Bearing Spacer
38	1	4784734	Gasket
39	1	2032214	Bearing 32214
40	3	3414101008	Nut M8 UNI 5587
41	7	3625000008	Washer D8 UNI 1751
42	4	3021108016	Screw M8 x 16 UNI 5739

# SPARE PARTS

## GEARBOX ASSEMBLY



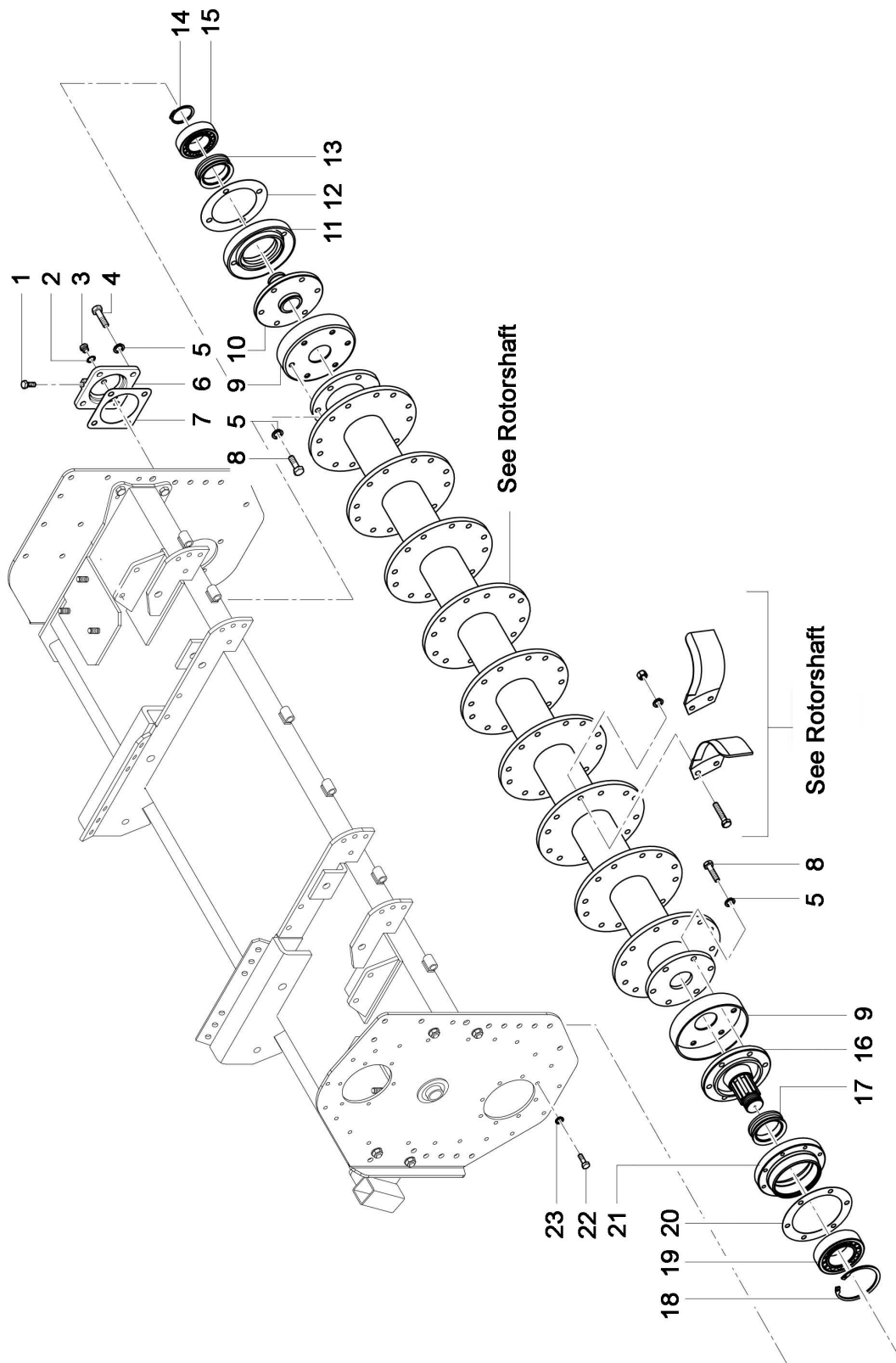
## SPARE PARTS

<u>REF#</u>	<u>QTY.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	6	3051110040	Screw M10 x 40 x 1.5 UNI 5931
2	1	12090-01	PTO Shaft Cover
3	3	6018105	Spacer 80 x 100 x 0.5
4	1	6204562	Oil Seal 45 x 62 x 10 PP DIN 3760 AS Type
5	1	2830309	Bearing 30309
6	1	12290-01	Shaft for Double PTO
7	2	2832209	Bearing 32209
8	1	3443022	Level Plug M22 x 1.5
9	1	6470122	Aluminum Seal Washer M22
10	1	16590-01	Gearbox Housing
11	2	6390820	Parallel Pin 8 x 24.3 UNI 1707
12	1	12290-06	Gear Z=22 M=6
13	2	13090-01	Locking Bush
14	1	17890-01	Gasket
15	1	3021110030	Screw M10 x 30 UNI 5739
16	1	16590-02	Gearbox Cover
17	1	12290-05	Gear Z=21 M=6
18	1	12290-04	Gear Z=17 M=6
19	1	12290-03	Gear Z=16 M=6
20	8	3021112030	Screw M20 x 30 UNI 5739
21	1	4214060	Shfat T230
21	1	4214061	Shaft T255
21	1	4214062	Shaft T280
21	1	4214063	Shaft T305
21	1	4214065	Shaft T355
22	1	4004032	Side Support T230
22	1	4004033	Side Support T255
22	1	4004034	Side Support T280
22	1	4004035	Side Support T305
22	1	4014019	Side Support T355
23	1	6105590	Oil Seal 55 x 90 x 10 gm
24	1	2830214	Bearing 30214
25	1	6017905	Spacer 70 x 79 x 0.5
27	1	3441022	Conical Plug
28	1	12290-02	Pinion Shaft
30	1	2832211	Bearing 32211
31	1	12090-02	Pinion Shaft Cover
32	6	3021110030	Screw M10 x 30 UNI 5739
33	1	80090-10	Bevel Gear Kit Z13/28
34	1	80090-02	Gearbox Assy EZ90



# SPARE PARTS

## ROTORSHAFT ASSEMBLY



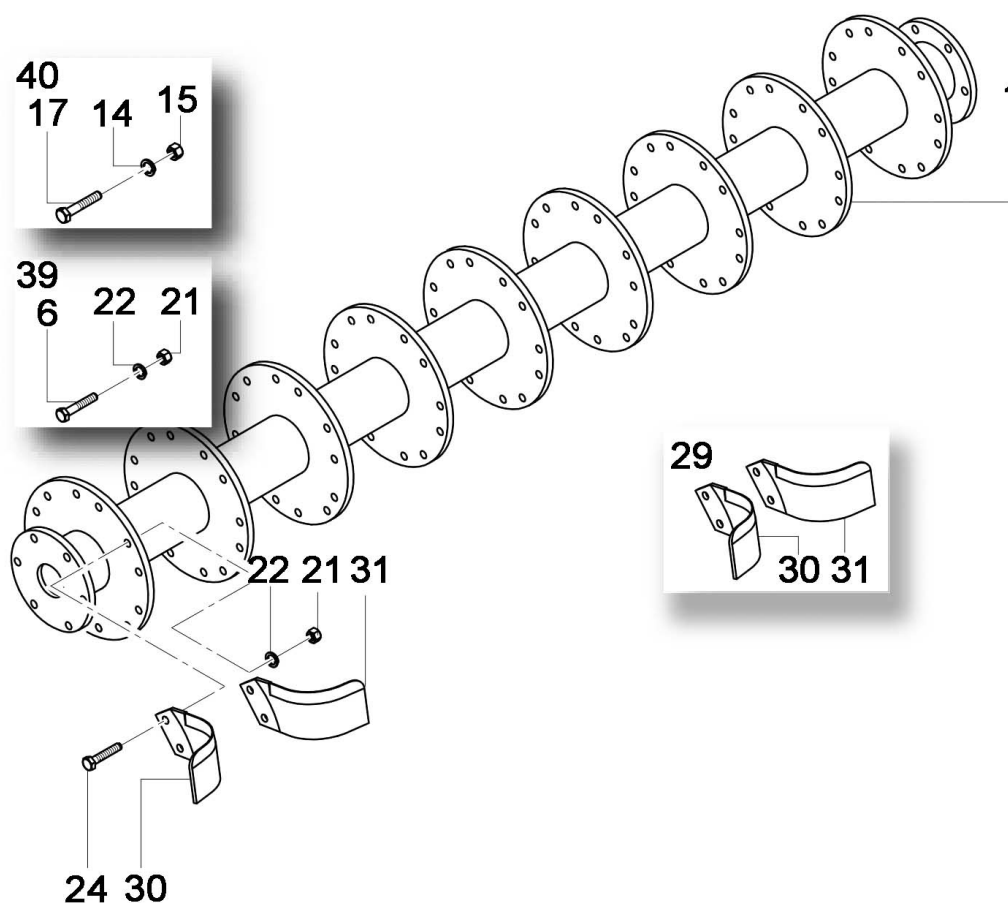


## SPARE PARTS

<u>REF#</u>	<u>QTY.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	1	3021110010	Screw M10 X 10 UNI 5739
2	1	6470114	Seal Washer Ø14
3	1	3444014	Oil Plug M14 x 1.5
4	4	3021114040	Screw M14 x 40 UNI 5739
5	16	3635100014	Washer D14 UNI 1751
6	1	4644001	External Support
7	1	4784118	Gasket
8	12	3021114035	Screw M14 x 35 UNI 5739
9	2	4144098	Dust Cover
10	1	4704006	Hub
11	1	4644005	Bearing Support
12	1	4784117	Gasket
13	1	6203911	Face Mechanical Seal GNL6460
14	1	6320050	Circlip E Ø50
15	1	2006310	Bearing 6310
16	1	4724008	Hub
17	1	6200750	Face Mechanical Seal GNL 0750
18	1	6310130	Circlip I Ø130
19	1	2821312	Bearing 21312
20	1	4784635	Gasket
21	1	4704009	Gear Support
22	8	3021110030	Screw M10 x 30 UNI 5739
23	8	3625000010	Washer Ø10 UNI 1751

## SPARE PARTS

### ROTORSHAFT

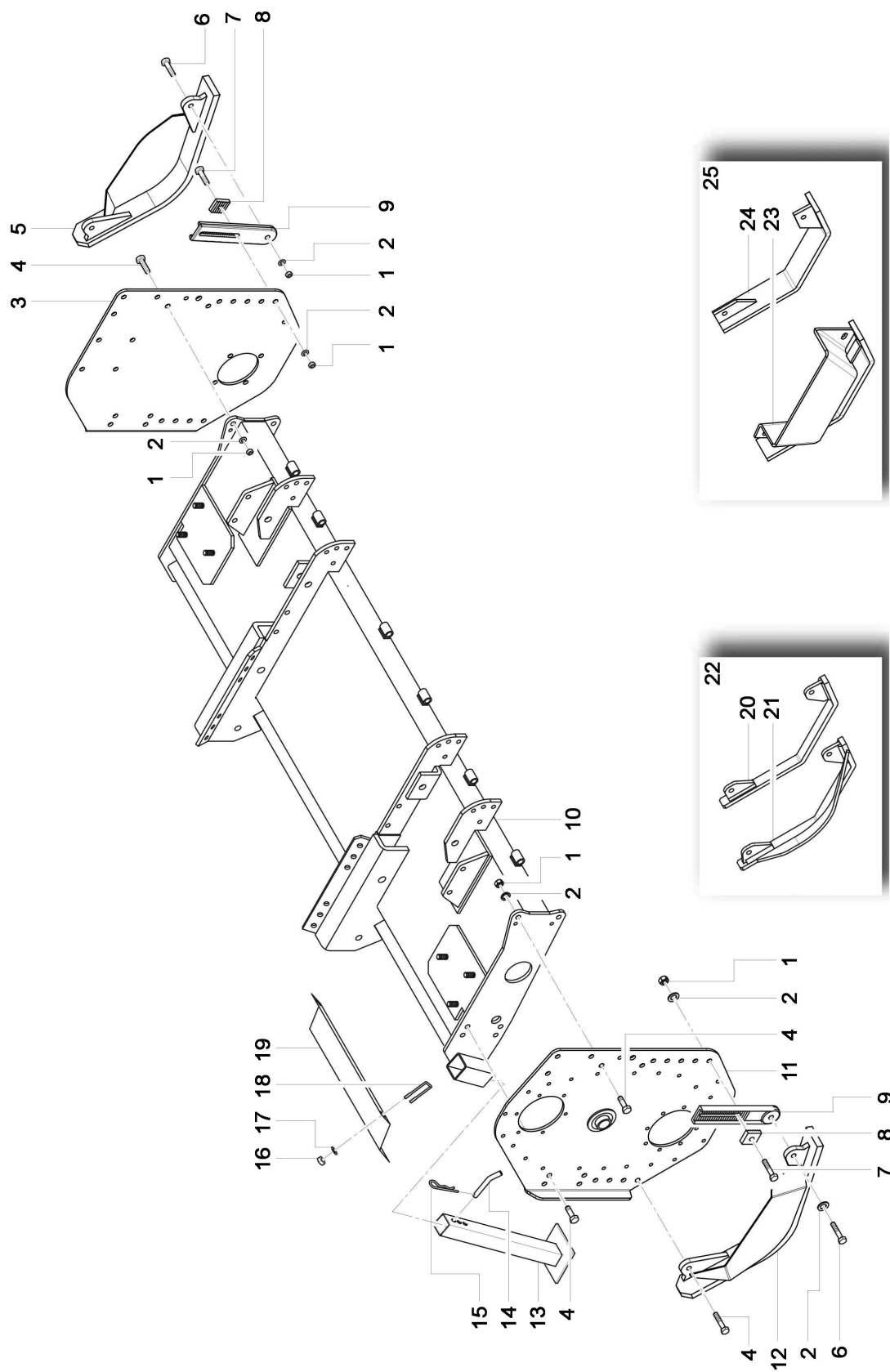


<u>REF#</u>	<u>QTY.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	1	4004846	Standard Rotor T230
1	1	4004847	Standard Rotor T255
1	1	4004848	Standard Rotor T280
1	1	4004849	Standard Rotor T305
1	1	4004858	Standard Rotor T355
21	As Req'd	3414102014	Nut M14 UNI 5587
22	As Req'd	3635100014	Washer Ø14 UNI 1751
24	As Req'd	3131114045	Screw M14 x 45 Thread 20 UNI 5738
30	As Req'd	4814007	LH Blade, Tungsten Coated
31	As Req'd	4814006	RH Blade, Tungsten Coated

## SPARE PARTS

<u>REF#</u>	<u>QTY.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	1	3021110010	Screw M10 X 10 UNI 5739
2	1	6470114	Seal Washer Ø14
3	1	3444014	Oil Plug M14 x 1.5
4	4	3021114040	Screw M14 x 40 UNI 5739
5	16	3635100014	Washer D14 UNI 1751
6	1	4644001	External Support
7	1	4784118	Gasket
8	12	3021114035	Screw M14 x 35 UNI 5739
9	2	4144098	Dust Cover
10	1	4704006	Hub
11	1	4644005	Bearing Support
12	1	4784117	Gasket
13	1	6203911	Face Mechanical Seal GNL6460
14	1	6320050	Circlip E Ø50
15	1	2006310	Bearing 6310
16	1	4724008	Hub
17	1	6200750	Face Mechanical Seal GNL 0750
18	1	6310130	Circlip I Ø130
19	1	2821312	Bearing 21312
20	1	4784635	Gasket
21	1	4704009	Gear Support
22	8	3021110030	Screw M10 x 30 UNI 5739
23	8	3625000010	Washer Ø10 UNI 1751

## MAIN DECK ASSEMBLY

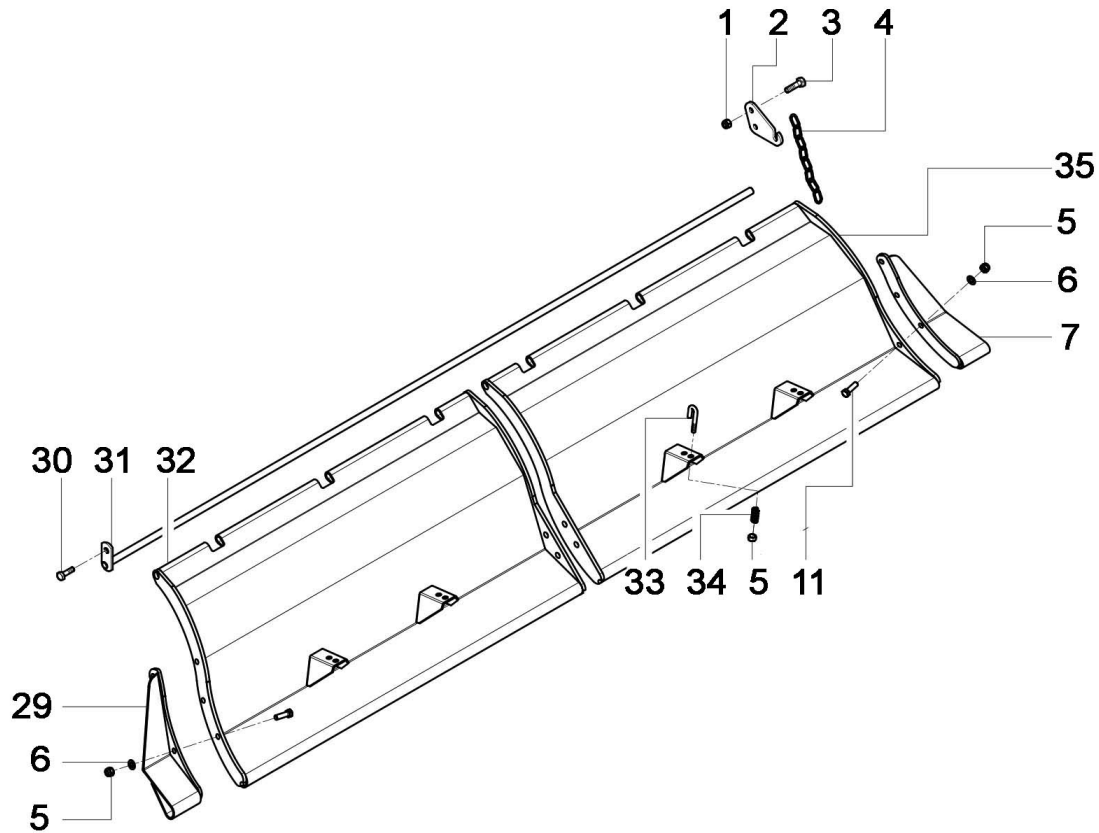


## SPARE PARTS

<u>REF#</u>	<u>QTY.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	13	3414101014	Nut M14 UNI 5587
2	13	3635100014	Washer D14 UNI 1751
3	1	4134011	External Side Plate
4	8	3021114040	Screw M14 40 x 2 UNI 5739
5	1	4014020	External Side Skid
6	2	3011114055	Screw M14 x 55 x 2 UNI 5735
7	2	3011114050	Screw M14 x 50 x 2 UNI 5737
8	2	4704654	Adjusting Rod Plate
9	2	4704653	Skid Adjusting Rod
10	1	4004083	Frame T230
10	1	4004084	Frame T255
10	1	4004085	Frame T280
10	1	4004086	Frame T305
10	1	4004010	Frame T355
11	1	4004122	Plate
12	1	4014021	Skid
13	1	4004058	Foot
14	1	4234004	Foot Pin
15	1	6351003	Split Pin Ø3
16	8	3444101008	Nut M8 DIN 980
17	8	3604100008	Washer Ø8 UNI 6592
18		4302005	Collar
19	2	4134282	CE Shield T230
19	2	4134284	CE Shield T255
19	2	4134285	CE Shield T280
19	2	4134286	CE Shield T305
19	2	4134287	CE Shield T355
20	1	4014022	External Side Narrow Skid
21	1	4014023	Transmission Side Narrow Skid
22	1	8004043	Lose Skids Kit
23	1	4004144	Protection
24	1	4004145	Protection
25	1	KIT-RG-010	Protection Kit With Rollers

## SPARE PARTS

### TAILBOARD ASSEMBLY



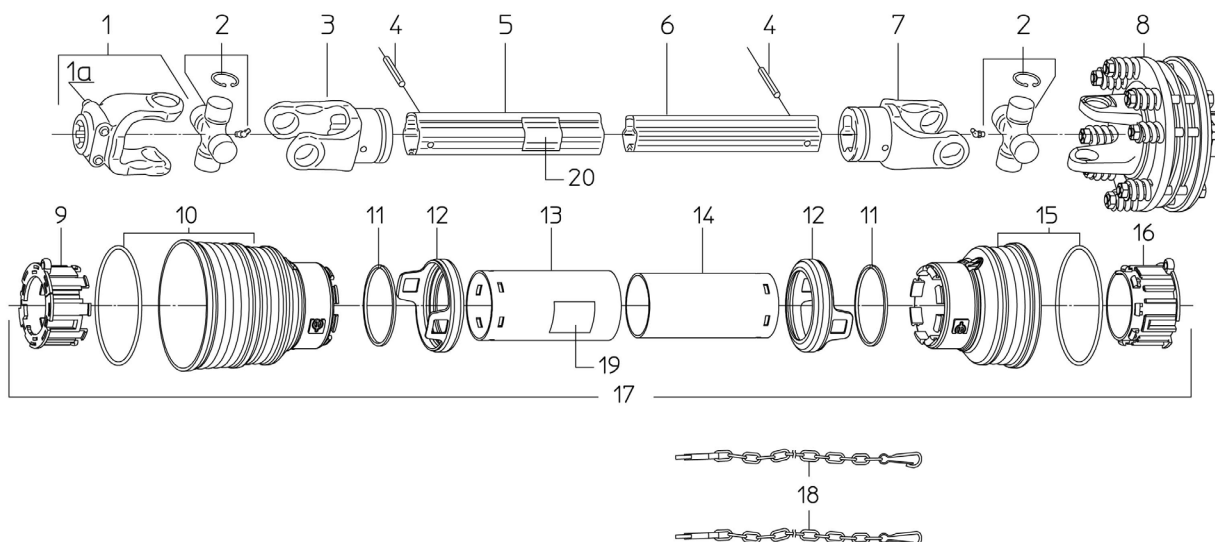
<u>REF#</u>	<u>QTY.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	16	3414101012	Nut M12 UNI 5587
2	8	4934778	Chain Hook
3	8	3021112035	Screw M12 x 35 UNI 5739
4	4	4508002	Chain (15 Chain Link)
5	10	3464101012	Self Locking Nut M12 UNI 7473
6	6	3625000012	Washer Ø12 UNI 1751
7	1	4014025	RH Bonnet Extension
11	14	3021112025	Screw M12 x 25 UNI 5739
29	1	4014026	LH Bonnet Extension
30	1	3021112030	Screw M12 x 30 UNI 5739
31	1	4002330	Cover Pin T230
31	1	4002332	Cover Pin T255
31	1	4002333	Cover Pin T280
31	1	4002334	Cover Pin T305
31	1	4012340	Cover Pin T355

## SPARE PARTS

<u>REF#</u>	<u>QTY.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
32	1	4004252	LH Bonnet T230
32	1	4004253	LH Bonnet T255
32	1	4004254	LH Bonnet T280
32	1	4004255	LH Bonnet T305
32	1	4004259	LH Bonnet T355
33	4	4302183	Chain Hook
34	4	4212214	Spring
35	1	4004248	RH Bonnet T230
35	1	4004249	RH Bonnet T255
35	1	4004250	RH Bonnet T280
35	1	4004251	RH Bonnet T305
35	1	4004258	RH Bonnet T355

## SPARE PARTS

### DRIVESHAFT ASSEMBLY - EYE81074-2255

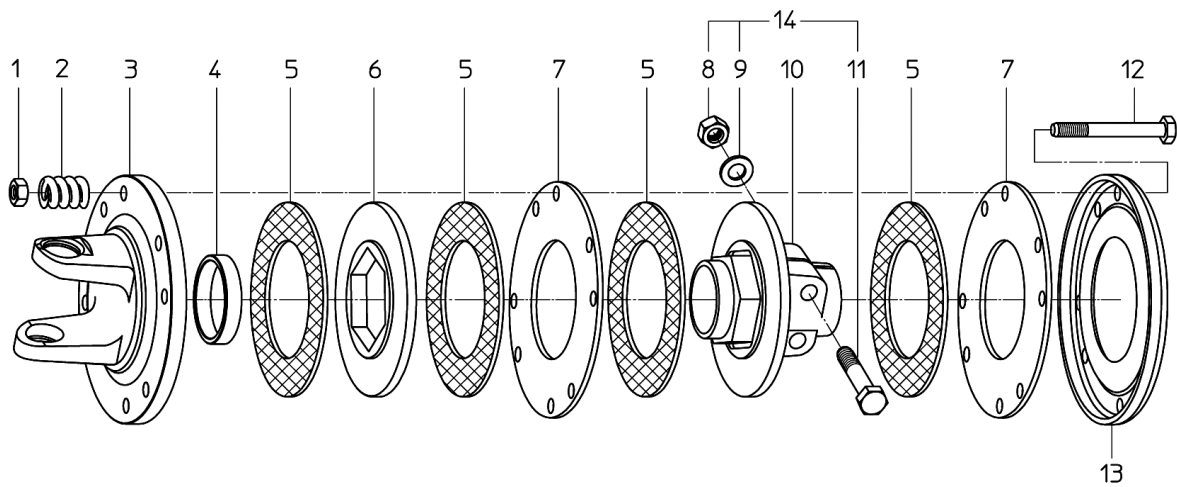


<b>REF#</b>	<b>QTY.</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
1	1	1028010	Yoke Assembly (1-3/8" 6 Spline)
1A	2	1581038	Push Pin Kit
2	2	1008020	Cross Assembly
3	1	1708067	Outer Tube Yoke
4	2	6331090	10 x 90 Elastic Pin
5	1	1818055	Outer Tube
6	1	1817055	Inner Tube
7	1	1708069	Inner Tube Yoke
8	1	1448032	Torque Limiter
9	1	1788010	Tube Bearing Outer Tube
10	1	1788003	Standard Cone
11	2	1218035	Stop Ring
12	2	1888009	Safety Coupling
13	1	1778044	Outer Tube Shield
14	1	1879044	Inner Tube Shield
15	1	1788002	Short Cone
16	1	1788011	Tube Bearing Inner Tube
17	1	90SS8044	Complete Protection
18	2	1006065	Anti-Rotation Chain
19	1	1140010	Outer Decal
20	1	1140011	Inner Decal



## SPARE PARTS

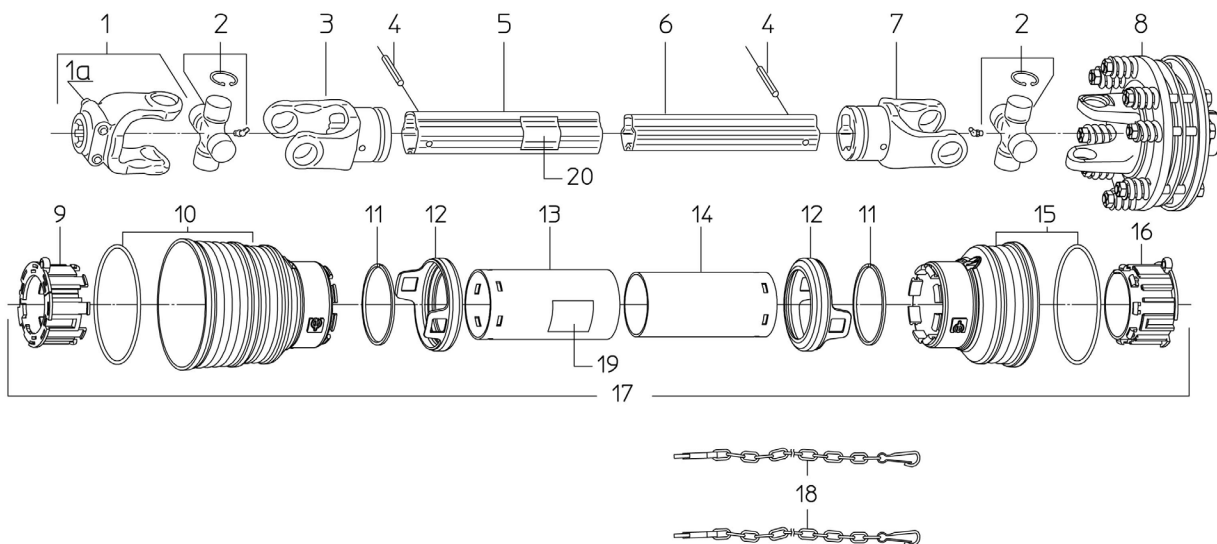
### SLIP CLUTCH ASSEMBLY



<u>REF#</u>	<u>QTY.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	8	6411010	Lock Nut
2	8	1215012	Spring
3	1	1708006	Flange With Yoke
4	1	1705009	Bushing
5	4	1808010	Friction Disc
6	1	1708034	Middle Plate Hex
7	2	1138008	Inner Plate Round
8	2	6410114	Screw Nut
9	2	6412114	Spring Washer
10	1	1708019	Hub With Flange
11	2	6141480	Bolt
12	8	6001010	Bolt For Spring
13	1	1138007	Cover Plate
14	2	6761480	Locking Bolt Kit

## SPARE PARTS

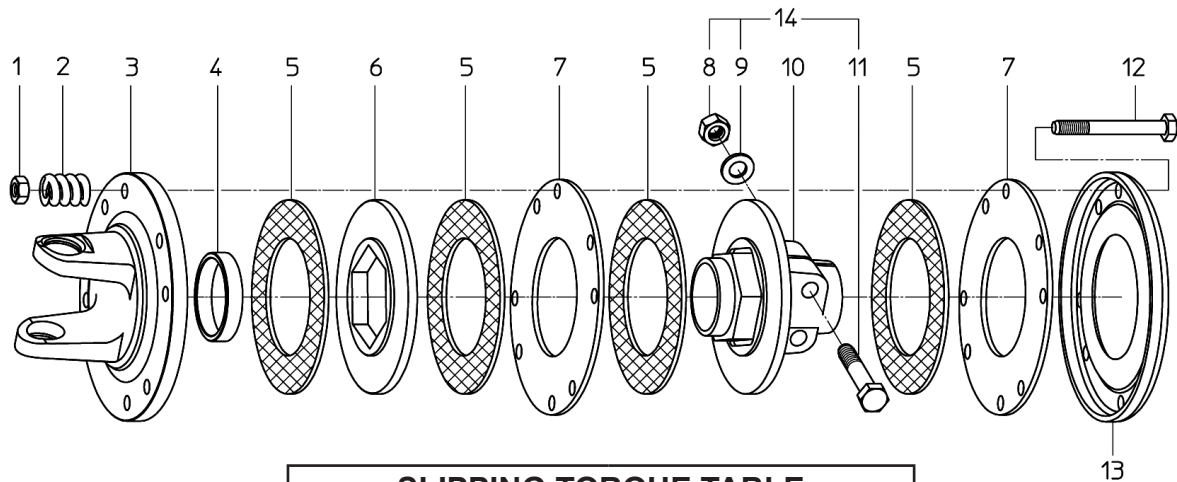
### DRIVESHAFT ASSEMBLY (T355 Only) - YE01074-13747



<b>REF#</b>	<b>QTY.</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
1	1	1010013	Yoke Assy Tractor End (1-3/8" 6 Spline)
1	1	1010018	Yoke Assy Tractor End (1-3/8" 21 Spline)
1	1	1010028	Yoke Assy Tractor End (1-3/4" 20 Spline)
1A	2	1581040	Push Pin Kit
2	2	1000020	Cross Assembly
3	1	1700067	Outer Tube Yoke
4	2	6331090	10 x 90 Elastic Pin
5	1	1810053	Outer Tube
6	1	1819053	Inner Tube
7	1	1700069	Inner Tube Yoke
8	1	1440032	Torque Limiter
9	1	1788016	Tube Bearing Outer Tube
10	1	1788023	Standard Cone
11	2	1218035	Stop Ring
12	2	1888009	Safety Coupling
13	1	1778041	Outer Tube Shield
14	1	1879041	Inner Tube Shield
15	1	1788022	Short Cone
16	1	1788017	Tube Bearing Inner Tube
17	1	90SC8041	Complete Protection
18	2	1006065	Anti-Rotation Chain
19	1	1140001	Outer Decal
20	1	1140003	Inner Decal

## SPARE PARTS

### SLIP CLUTCH ASSEMBLY (T355 Only)



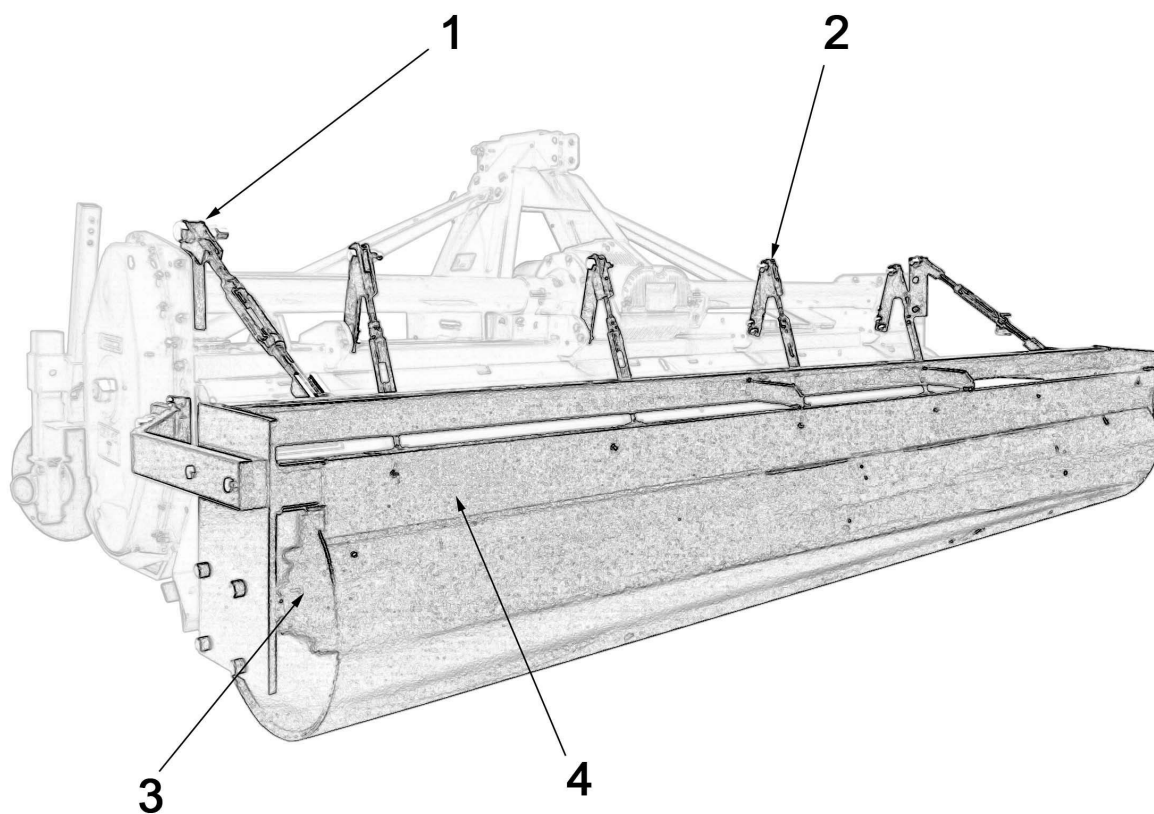
**SLIPPING TORQUE TABLE**

Springs Compression Height Setting (mm)	Slipping torque (*10%) (Nm)
29	1000
28	1700
27	2200
26	2500

<u>REF#</u>	<u>QTY.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	8	6411010	Lock Nut
2	8	1215012	Spring
3	1	1700006	Flange With Yoke
4	1	1705009	Bushing
5	4	1808010	Friction Disc
6	1	1708034	Middle Plate Hex
7	2	1138008	Inner Plate Round
8	2	6410114	Screw Nut
9	2	6412114	Spring Washer
10	1	1708019	Hub With Flange
11	2	6141480	Bolt
12	8	6001010	Bolt For Spring
13	1	1138007	Cover Plate
14	2	6761480	Locking Bolt Kit

## OPTIONS

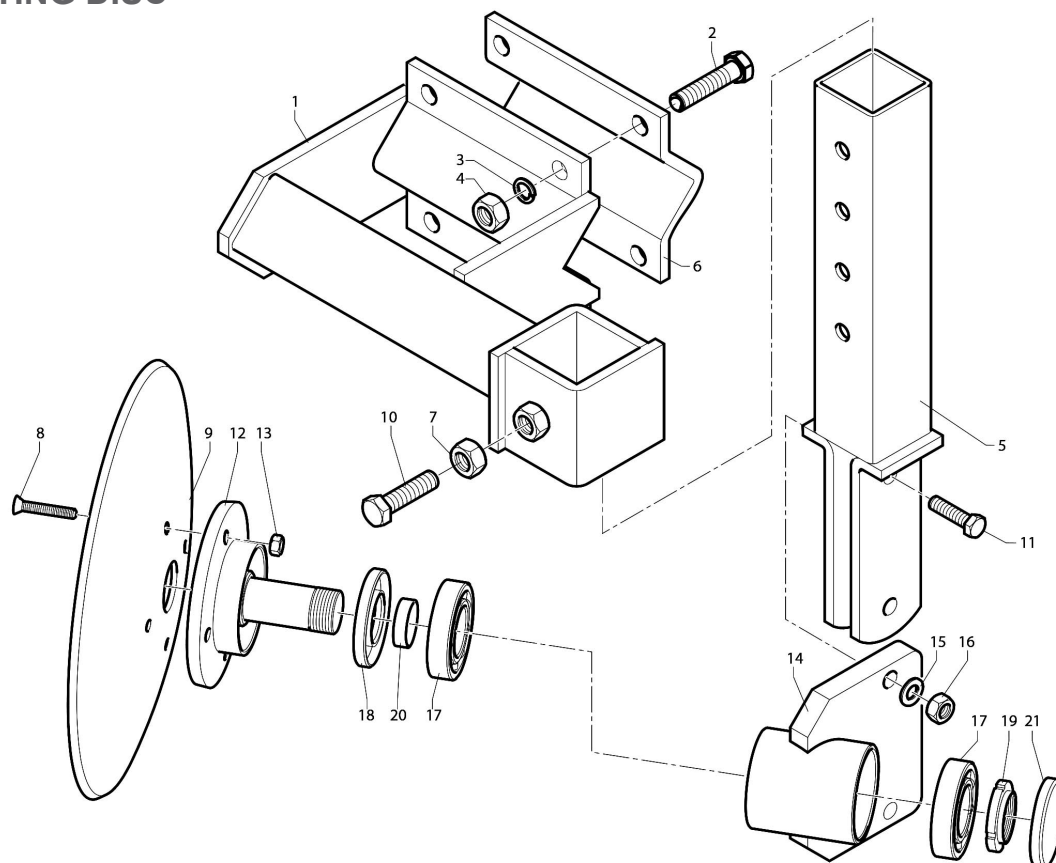
### REAR ROLLER



<u>REF#</u>	<u>QTY.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	2	T2000	Turnbuckle Roller
2	4	T2001	Turnbuckle Tailboard
3	2	T2002	Bearing, Roller
4	1	T2003	Mud Scraper Bar

## OPTIONS

### CUTTING DISC



<b>REF.</b>	<b>QTY.</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
1	1	4004175	Main Bracket
2	4	3031014070	Bolt M14 x 70 x 1.5
3	4	3625000016	Lock Washer M16
4	4	3414101016	Nut M16
5	1	4004178	Vertical Disc Bracket
6	1	4834031	Cap, Main Bracket
7	1	3414101014	Nut M16
8	1	3062210030	Bolt, Flush Mount
9	1	4114001	14" Coulter Disc
10	1	3021114060	Bolt M14 x 60 x 2
11	2	3031014060	Bolt M14 x 60 x 1.5
12	1	4004177	Support Hub Disc
13	4	3464101010	Nut, Self Locking M10
14	1	4004176	Bearing Housing
15	2	3625000014	Washer D14
16	2	3414101014	Nut M14
17	2	2730207	Bearing 30207
18	1	6204572	Oil Seal
19	1	3840035	Nut, Self Locking D35
20	1	4534006	Spacer
21	1	6100072	Grease Cap D72

## LIMITED WARRANTY



GEARMORE, INC., warrants each new Gearmore product to be free from defects in material and workmanship for a period of twelve (12) months from date of purchase to the original purchaser. This warranty shall not apply to implements or parts that have been subject to misuse, negligence, accident, or that have been altered in any way.

Our obligation shall be limited to repairing or replacement of any part, provided that such part is returned within thirty (30) days from date of failure to Gearmore through the dealer from whom the purchase was made, transportation charges prepaid.

This warranty shall not be interpreted to render us liable for injury or damages of any kind or nature, direct, consequential or contingent, to person or property. This warranty does not extend to loss of crops, loss because of delay in harvesting or any other expenses, for any other reasons.

Gearmore in no way warrants engines, tires, or other trade accessories, since these items are warranted separately by these respective manufacturers.

Gearmore reserves the right to make improvements in design or changes in specification at any time, without incurring any obligations to owners or units previously sold.

Please be advised that all warranty work done by your dealer must be approved by Gearmore before work begins.

GEARMORE, INC.  
13477 Benson Ave.  
Chino, CA 91710

Always refer to and heed machine operating warning decals on machine.

*To validate the warranty on this product, please log-in to our website - [www.gearmore.com](http://www.gearmore.com).  
You will find "warranty registration" listed at the top of our homepage.*