

# TMG-TFMO50/60/70 PRODUCT MANUAL v.2024.07.05

# TRACTOR OFFSET FLAIL MOWER



# **A WARNING**



- ullet Please read and understand the product manual completely before assembly
- Check against the parts list to make sure all parts are received
- · Wear proper safety goggles or other protective gears while in assembly
- Do not return the product to dealer. They are not equipped to handle your requests.

TOLL FREE: 1-877-761-2819

Missing parts or have questions on assembly?

Please call: 1-877-761-2819 or email: cs@tmgindustrial.com

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## IMPORTANT SAFETY INFORMATION

#### Safety always

Thoroughly read and understand the instructions given in this manual before operation. Refer to the "Safety Decal", read all instructions noted on them.

Do not allow anyone to operate this equipment who has not fully read and comprehended this manual and who has not been properly trained in the safe operation of the equipment.

- 1. Operator should be familiar with all functions of the unit. Operate implement from the driver's seat only.
- 2. Make sure all guards and shields are in place and secured before operating the implement.
- 3. Do not leave tractor or implement unattended with engine running.
- 4. Dismounting from a moving tractor could cause serious injury or death.
- 5. Do not stand between tractor and implement during hitching.
- 6. Keep hands, feet, and clothing away from power-driven parts.
- 7. Wear snug fitting clothing to avoid entanglement with moving parts.
- 8. Watch out for wires, trees, etc., when raising implement. Make sure all persons are clear of working area.
- 9. Turning tractor too tight may cause implement to ride up on wheels. This could result in injury or equipment damage.

Look For the Safety Alert Symbol

The SAFETY ALERT SYMBOL indicates there is a potential hazard to personal safety involved and extra safety precaution must be taken. When you see this symbol, be alert and carefully readthe message that follows it. In addition to design and configuration of equipment, hazard controland accident prevention are dependent upon the awareness, concern, prudence, and proper training of personnel involved in the operation, transport, maintenance and storage of equipment. Be aware of signal words

A signal word designates a degree or level of hazard seriousness. The signal words are:



#### **DANGER**

Indicates an imminently hazardous situation which, if not avoids, will result in death or serious injury. This signal word is limited to the most extreme situations, typically for machine components that, for functional purpose, cannot be guarded.



## **WARNING**

Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury, and includes hazards that are exposed when guards are removed. It may also be used to alert against unsafe practices.



#### **CAUTION**

Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

For you protection

Thoroughly read and understand the "safety label" section, read all instructions noted on them.

Shut down and storage

Lower machine to ground, put tractor in park, turn off engine, and remove the ignition key.

Detach and store implements in a area where children normally do not play. Secure implement by using blocks and supports. Use safety lights and devices

Slow moving tractors, self-propelled equipment, and towed implements can create a hazard when driven on public roads. They are difficult to see, especially at night.

Flashing warning lights and turn signals are recommended whenever driving on public roads. Use lights and devices provided with implement.

#### **Transport machinery safely**

- 1. Comply with state and local laws.
- 2. Maximum transport speed for implement is 20 mph. Do not exceed. Never travel at a speed which does not allow adequate control of steering and stopping. Some rough terrain require a slower speed.
- 3. Sudden braking can cause a towed load to swerve and upset. Reduce speed if towed load is not equipped with brakes.
- 4. IMPORTANT: Do not tow a load that is more than 1/3 the weight of tractor.

Keep riders off machinery.

Riders obstruct of operator's view, they could be struck by foreign objects or thrown from the machine.

Never allow children to operate equipment.

Practice safe maintenance

- 1. Understand procedure before doing work. Use proper tools and equipment. refer to Operator's
- 2. Manual for additional information.
- 3. Work in a clean dry area.
- 4. Lower the implement to the ground, put tractor in park, turn off engine, and remove key before performing maintenance.
- 5. Allow implement to cool completely.
- 6. Do not grease or oil implement while it is operation.
- 7. Inspect all parts. Make sure parts are in good condition and installed properly.
- 8. Remove buildup of grease, oil or debris.
- 9. Remove all tools and unused parts from implement before operation.
- 10. Prepare for emergencies
- 11. Be prepared if a fire starts.
- 12. Keep a fist aid kit and fire extinguisher handy.
- 13. Keep emergency numbers for doctor, ambulance, hospital and fire department near phone.

Wear protective equipment.

- 1. Protective clothing and equipment should be worn.
- 2. Wear clothing and equipment appropriate for the job. Avoid loose fitting clothing.
- 3. Prolonged exposure to loud noise can cause hearing impairment or hearing loss. Wear suitable hearing protection such as earmuffs or earplugs.
- 4. Operating equipment safely requires the full attention of the operator. Avoid wearing radio headphones while operating machinery.

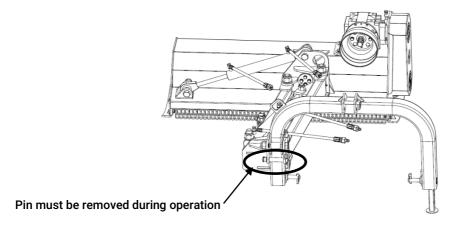
Avoid high pressure fluids hazard.

- 1. Escaping fluid under pressure can penetrate the skin causing serious injury.
- 2. Avoid the hazard by relieving pressure before disconnecting hydraulic lines.
- 3. Use a piece of paper or cardboard, not body parts, to check for suspected leaks. Wear protective gloves and safety glasses or goggles when working with hydraulic systems.
- 4. If an accident occurs, see a doctor immediately. Any fluid injected into the skin must be treated within a few hours or gangrene may result.

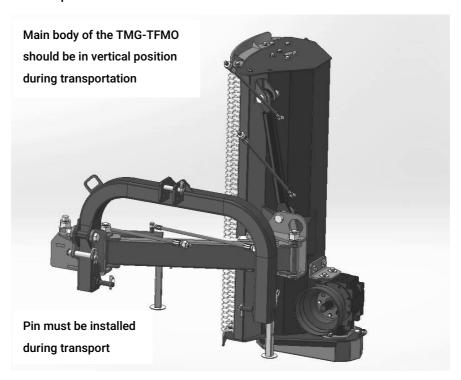


#### WARNING

The transport and storage safety pin must be removed during operation. Failure to do so will result in product failure and damage to the product and possible injury.



Proper Transportation of the product is essential to safe and proper operation. Please see picture below for the proper way to transport the TMG-TFMO series of products.



#### **Safety Labels**

Your Flail Mower comes equipped with all safety labels in place. They were designed to help you safely operate your implement. Read and follow their directions.

- 1. Keep all safety labels clean and legible.
- 2. Replace all damaged or missing labels. To order new labels go to your nearest TMG dealer or visit our dealer locator at TMG.com.
- 3. Some new equipment installed during repair requires safety labels to be affixed to the replaced component as specified by TMG. When ordering new components make sure the correct safety labels are included in the request.
- 4. Refer to this section for proper label placement. To install new labels:
  - a. Clean the area the label is to be placed.
  - b. Spray soapy water on the surface where the label is to be placed.
  - C. Peel backing from label. Press firmly onto the surface.
  - d. Squeeze out air bubbles with the edge of a credit card.

#### Safety labels







This shows the grease position.

## INTRODUCTION

TMG welcomes you to the growing family of new product owners. This implement has been designed with care and built by skilled workers using quality materials. Proper assembly, maintenance, and safe operating practices will help you get years of satisfactory use from the machine.

The Flail Mowers are designed for Category 1 - three point hitch or Quick-Hitch System mounting. These Fixed Bar Flail Mowers are ideal for ripping, leveling, finish grading, and backfilling applications at feedlots, outdoor arenas, building sites, and maintenance operations on farm and ranch lanes or roadways.

#### **Using This Manual**

- 1. This Operator's Manual is designed to help familiarize you with safety, assembly, operation, adjustments, troubleshooting, and maintenance. Read this manual and follow the recommendations to help ensure safe and efficient operation.
- 2. The information contained within this manual was current at the time of printing. Some parts may change slightly to assure you of the best performance.
- 3. To order a new Operator's or Parts Manual contact your authorized dealer. Manuals can also be printed from the TMG Service & Support Center by your dealer.

#### **Terminology**

"Right" or "Left" as used in this manual is determined by facing the direction the machine will operate while in use unless otherwise stated.

Note: A special point of information that the operator must be aware of before continuing.

Important: A special point of information related to its preceding topic. The intention is that this information should be read and noted before continuing.

#### **Owner Assistance**

The Warranty Registration card should be filled out by the dealer at the time of purchase. This information is necessary to provide you with quality customer service. If customer service or repair parts are required contact a dealer. A dealer has trained personnel, repair parts and equipment needed to service the machine.

The parts on your machine have been specially designed and should only be replaced with genuine parts.

Serial Number Plate

For prompt service always use the serial number and model number when ordering parts from your dealer. Be sure to include your serial and model numbers in correspondence also.

## **SECTION 1: ASSEMBLY AND SET-UP**

#### **Tractor Requirements**

This mower is designed with a 3-Point category 1 hitch. Tractor horsepower rating should not exceed 50 PTO horse power.

#### **Packing Description**

1. Remove and check

Remove the packing, check goods without defect and omission.

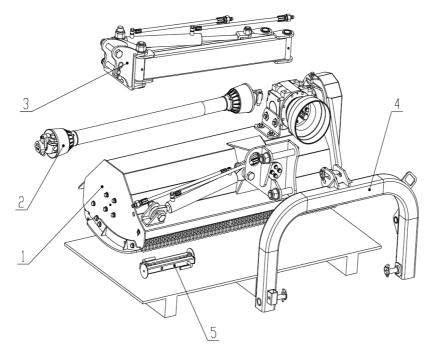


Figure 1-1: The Mower and Accessory in Package

## 2. Packing List

The detailed packing list of the mower and accessory as the following table.

Item	Description	Qty.	Package Form
1	Main body of the mower and fittings	body of the mower and fittings 1	
2	Driveline shaft	1	None
3	Swing arms sub-assembly and fittings	1	Pearl cotton
4	Hitch tube weldment and fittings	1	None
5	Raker sub-assembly	2	Bubble film

The detailed description of main body of the mower and fittings

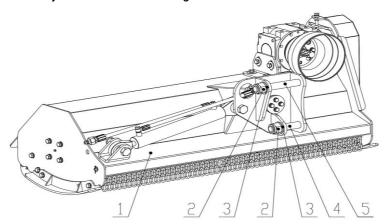


Figure 1-2: Main Body of The Mower and Fittings

Item	Description	Qty.
1	Main body of the mower	1
2	Locknut M30x2	2
3	Plain washer 30	2
4	Swing arm pin - shorter	1
5	Swing arm pin 1 - longer	1

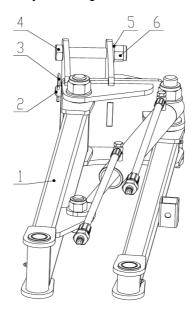


Figure 1-3: Swing Arms Sub-Assembly and Fittings

Item	Description	Qty.
1	Swing arms sub-assembly	1
2	Safety pin of hitch weldment	1
3	R pin	1
4	Bolt M24x140	1
5	Plain washer 24	1
6	Locknut M24	1

The detailed description of hitch tube weldment and fittings

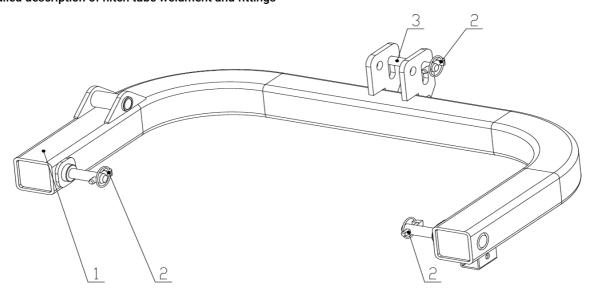


Figure 1-4: Hitch Tube Weldment and Fittings

Item	Description	Qty.
1	Hitch tube weldment	1
2	Safety lock pin	3
3	Hitch pin - upper	1

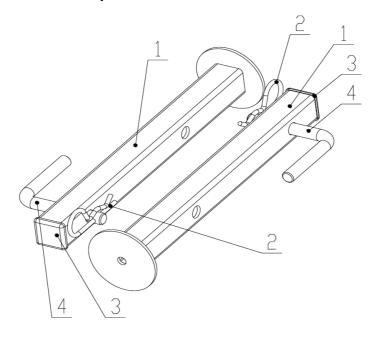


Figure 1-5: Raker Sub-Assembly

Item	Description	Qty.
1	Raker weldment	2
2	R pin	2
3	Plastic plug	2
4	Raker pin	2

#### **Installation Wizard**

The installation wizard will guide you to finish the final assembly of your new mower easily.

#### 1. Tool Required

Air impact wrench with 36mm sleeve and 46mm sleeve.

#### 2. Torque Application

Refer to bolt torque in Section 7 Appendix.

#### 3. Assembly

Step1: Adjusting Overturning Bracket Weldment on Main Body of The Mower

Remove the packaging of main body of the mower and fittings.

Remove the oil inlet pipe and oil outlet pipe on the item1 to release the pressure in the cylinder. That will make it easy to turn the item2  $90^{\circ}$  clockwise.

Reinstall those oil pipes after the item2 is in position as shown in figure6.

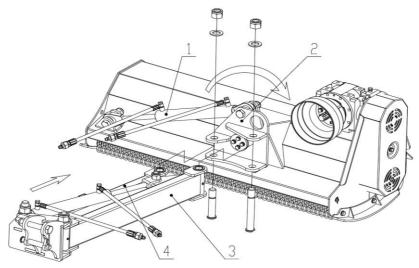


Figure 1-6: Adjusting Overturning Bracket and Installing Swing Arms Sub-Assembly

Item	Description
1	Overturning cylinder sub-assembly
2	Overturning bracket weldment
3	Swing arm weldment - bigger
4	Swing arm weldment - smaller

Step2: Installing Swing Arms Sub-Assembly

Remove the packaging of swing arms Sub-Assembly and fittings.

Push swing arms sub-assembly into the overturning bracket weldment as shown in figure 7. Fix it with 1pcs of swing arm pin-shorter, 1pcs of swing arm pin-longer, 2pcs of plain washers 30 and 2pcs of locknuts M30.

Tighten locknuts completely.

Step3: Installing Hitch Tube Weldment and Fittings

Remove the packaging of hitch tube weldment and fittings.

Fix hitch tube weldment to swing arms sub-assembly with 1pcs of bolt M24x140, 1pcs of plain washer 24 and 1pcs of locknut M24. Tighten locknuts completely.

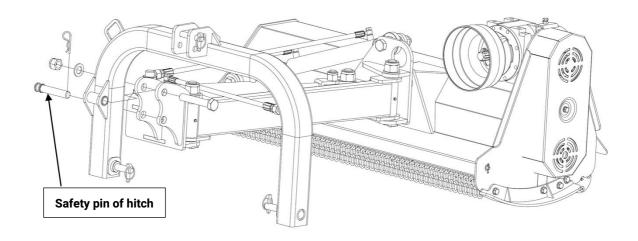


Figure 1-7: Installing Hitch Tube Weldment and Fittings

Step4: Installing Raker Sub-Assembly

Remove the packaging of raker sub-assembly.

Insert one of raker weldment into the tube on swing arm weldment smaller as well as raker pin, and insert R pin into the hole on raker pin.

Insert another raker weldment into the tube on hitch tube weldment as well as raker pin, and insert R pin into the hole on raker pin.

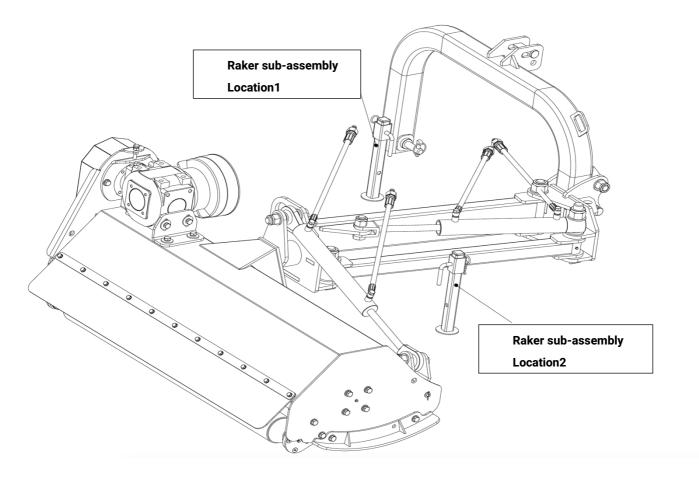


Figure 1-8: Installing Raker Sub-Assembly



#### **WARNING**

The safety pin of hitch weldment is designed to limit the rotation of hitch tube weldment around the screw M24x140 when the mower is placed daily or transferred.

Remove and insert the safety pin into the left hole on the lifting bracket weldment of swing arms sub-assembly before operation. Fill the gearbox with proper amount of SAE 90 gear oil before operation.

Remove the packaging of raker sub-assembly.

Insert one of raker weldment into the tube on swing arm weldment smaller as well as raker pin and insert R pin into the hole on raker pin.

Insert another raker weldment into the tube on hitch tube weldment as well as raker pin and insert R pin into the hole on raker pin.

#### **Tractor Hook-Up**

- Be certain that tractor draw bar will not interfere. Move draw bar ahead or remove if required. Draw bar should also be checked for clearance when unit is being raised for the first time.
- 2. Align lower link arms of tractor to hitch clevises on mower. Insert lower hitch pins into lower ball swivels and attach link pins.
- 3. Attach tractor top link to upper floating hitch on mower with pin supplied. Secure with lock pin.
- 4. Adjust tractor top link in or out to place upper hitch pin vertically above or slightly behind lower hitch pins to allow mower flotation. The mower should be run with the back 15 degrees lower than the front.

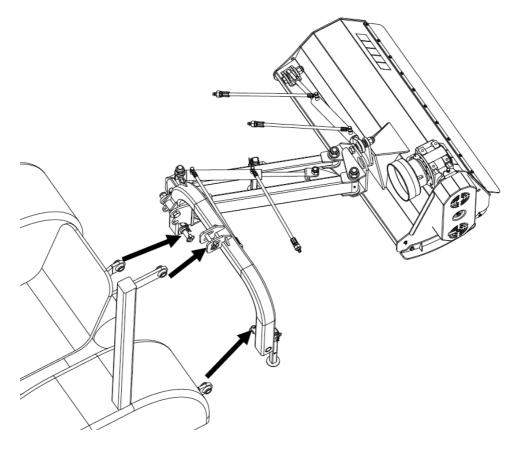


Figure 1-9: Tractor Hook-up

#### **Driveline Installation**

- 1. Slide driveline end with extended safety cone over spline shaft of gearbox and secure with attaching device.
- 2. Slide driveline over tractor's spline PTO shaft and secure with locking device of driveline.
- 3. Driveline should now be moved back and forth to ensure that it is secure on the PTO shaft of the tractor and mower gearbox.
- 4. Attach chain from the driveline shield to one of the upper hitch braces to ensure that the shield does not rotate.
- 5. Should driveline require shortening:
  - a. Hold the half-shafts next to each other in the shortest working position andmark them.
  - Shorten inner and outer guard tubes equally.
  - c. Shorten inner and outer sliding profiles by the same length as the guard tubes.
  - d. Proper overlap is a minimum of one-half the length of each tube, with both tubes being of equallength.
  - e. Round off all sharp edges and remove burrs. Grease sliding profiles.



#### **CAUTION**

Tractor PTO shield and all mower guards must be always in place during operation!

## **SECTION 2: OPERATING INSTRUCTIONS**

#### **Transporting**

NOTE: Always disengage PTO before raising mower to transport position.

1. When raising the mower to transport position, be sure that driveline does not contact tractor or mower. Adjust and set the tractor's 3-point hitch lift height so that the driveline does not contact mower deck in the fully raised position.

- 2. Be sure to reduce tractor ground speed when turning, leaving enough clearance so that the mower does not contact obstacles such as buildings, trees or fences.
- 3. Be sure to reduce tractor ground speed when turning, leaving enough clearance so that the mower does not contact obstacles such as buildings, trees or fences.
- 4. Select a safe ground travel speed when transporting from one area to another. When traveling on roadways, transport in such a way that faster moving vehicles may pass safely.
- 5. When traveling over rough or hilly terrain, shift tractor to a lower gear.



#### **CAUTION**

When traveling on public roads, whether at night or during the day, use accessory lights and devices foradequate warning to operators of other vehicles. Comply with all Federal, State, and local laws.

#### **Mowing Instructions**

- 1. Clear area to be mowed of objects and debris that might be picked up and thrown by the mower blades.
- 2. Grass is best cut when it is dry. Mowing wet grass can cause plugging resulting in grass clumps behind the mower.
- 3. Grass should be mowed frequently as shorter clippings deteriorate faster.
- 4. If mowing extremely tall grass, it is best to raise cutting height and mow the area, then lower cutting height and mow a second time at the desired height.

#### **Operating Instructions**

Proper servicing and adjustments are the key to the long life of any machine. With careful and systematic inspection of the mower, costly maintenance, time and repair can be avoided.

Before beginning to mow, the following inspection should be performed:

- 1. Check oil level in gearbox.
- 2. Check that all plugs in gearbox have been replaced and tightened properly.
- 3. Be sure all mower knives, bolts and nuts are tight.
- 4. Be certain all guards and shields are in place and secure.
- 5. Grease driveline shaft and all other grease fittings.
- 6. Clear area to be mowed of rocks, branches and other foreign objects.
- 7. Lower mower to ground. Set tractor throttle at approximately 1/4 open. Engage PTO to start blades rotating.
- 8. Operate with 540 rpm PTO tractor.
- 9. At first begin mowing at a slow forward speed and shift up until the desired speed is achieved maintaining 540 PTO rpm.
- 10. Mower knives will cut better at a faster blade speed than at reduced throttle.
- 11. After mowing the first 50 feet, stop and check to see that the mower is adjusted properly.
- 12. Do not make sharp turns or attempt to back up while mower is on the ground.
- 13. Do not engage PTO with mower in the fully raised position. Do not engage PTO at full throttle.

## **SECTION 3: ADJUSTMENTS**

#### Leveling the Mower

NOTE: Tractor and mower should be on level ground.

Leveling can be adjusted at the tractor's 3-point arms and center link.

#### **Cutting Height Adjustment**

The machines cutting height depends upon the position of the rear roller.

- 1. Remove the bolts that fix the roller on both sides.
- 2. Lift or lower both sides of roller in equal measurements.
- 3. Replace bolts and re-tighten.

#### **3-Point Hitch Adjustments**

The 3-point hitch system on this mower has been designed for front to back flotation when mowing on uneven terrain. Adjust tractor's top center link to place the upper hitch pin vertically above or slightly behind the lower hitch pins. The mower should be run with the back 15 degrees lower than the front.

The hitch can also be adjusted from side to side by turning the adjustment handle. Turn handle until you have achieved your desired location.



#### CAUTION

Engage parking brake, shut off tractor, remove key and disengage PTO before making any heightadjustments!

Belt Tension



## CAUTION

Belt drive system under spring tension; use care to avoid bodily harm!

The Belt tension should be checked after the first 20 hours of use. And then every 40 hours of use.

- Tension on the belt can be adjusted with the belt tension bolt. Turn the bolt until desired tension is achieved. When the
  belt has the correct tension the gearbox should be adjusted so that the gearbox extension is running straight (parallel)
  with the flail mower. Loosen bolts at the bottom of the gearbox and move gearbox until gearbox extension is running
  straight.
- 2. Excessive tension on the belt may lead to premature failure of belt and drive components.



## **CAUTION**

Excessive tension on the belt may lead to premature failure of belt and drive components. Excessivetension on the belt may also lead to a safety hazard to the operator or bystanders.

## **SECTION 4: MAINTENANCE AND LUBRICATION**

#### Maintenance

Proper servicing and adjustment is the key to the long life of any farm implement. With careful and systematic inspection, you can avoid costly maintenance, time and repair.



#### **CAUTION**

For safety reasons, each maintenance operation must be performed with tractor PTO disengaged, mower lowered completely to ground and tractor engine shut off with ignition key removed.

- 1. After using the mower for several hours, check all bolts to be sure they are tight and check drive belt tension.
- 2. Replace any worn, damaged or illegible safety decals by obtaining new decals from dealer.

#### **Knife Replacement**

IMPORTANT: Make sure that the knife is the same length as the others on the mower. This will keep the rotor rotation balanced.

- 1. Remove bolt and nut.
- 2. Remove old knife.
- 3. Install new knife and existing bolt.
- 4. Secure with nut.

#### **V-Belt Installation**



#### **CAUTION**

Belt drive system under spring tension; use care to avoid bodily harm!

1. Remove belt guard fender and belt cover.

- 2. Disengage belt tension by loosening belt tension bolt until belt can be removed.
- 3. With tension relieved from belt remove old belt from pulleys.
- 4. Tighten belt tension bolt.
- 5. Reinstall belt guard and belt guard fender.

#### Storage

At the end of the working season or when the mower will not be used for a long period, it is good practice to clean off any dirt or grease that may have accumulated on the mower and any of moving parts.

- 1. Clean as necessary.
- 2. Check knives for wear and replace if necessary.
- 3. Inspect mower for loose, damaged or worn parts and adjust or replace as needed.
- 4. Store unit inside if possible for longer life.
- 5. Repaint parts where paint is worn or scratched to prevent rust.
- 6. Replace all damaged or missing decals.

#### Lubrication

**Driveline Shaft U-Joints** 

Type of Lubrication: Multi-purpose Grease

HOURS 25

Roller Bearing (Both Ends)

Type of Lubrication: Multi-purpose Grease



**Cutter Rotor Bearing (Both Ends)** 

Type of Lubrication: Multi-purpose Grease

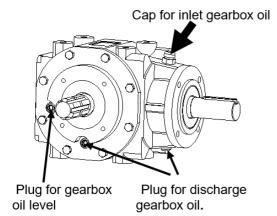


#### Gearbox

Type of Lubrication: SAE 90W Gear Lube  $_{\circ}$ 

Check oil level through cap for gearbox oil level.





Check oil level in gearbox by removing the plug located on the right-hand side.

Oil should be level with bottom of plug hole. Add oil if necessary, by removing top fill plug and side plug. Add oil until it flows from side plug hole.

Do not overfill!

WARNING: Overfilling or under filling gear oil may cause gearbox seizing or damage and driveline shaft twisting.

#### **IMPORTANT:**

Gearbox are shipped without gear oil. Gear oil must be filled before the first operation.

Mower should be level when checking oil in gearbox!

**Driveline Profiles** 

Type of Lubrication: Multi-purpose Grease



# **SECTION 5: SPECIFICATIONS & CAPACITIES**

TMG-TFMO Series Mower Specifications					
MODEL	TMG-TFMO50	TMG-TFM060	TMG-TFM070		
DIMENSIONS(LxWxH)	1400x1450x760mm	1600x1450x760mm	1800x1450x760mm		
STRUCTURE WEIGHT	280kg	300kg	340kg		
CUTTING WIDTH	1250mm	1450mm	1650mm		
WORKING EFFICIENCY	3900-9800m2/h	4500-11000m2/h	5100-12200m2/h		
PTO TURNNING SPEED	540r/min	540r/min	540r/min		
PTO SPLINE	6x8x1600mm	6x8x1600mm	6x8x1600mm		
POWER REQUIRED	20-50HP	25-50HP	30-50HP		

# **SECTION 6: TROUBLESHOOTING**

Problem	Solution
Do not try to cle	an rear discharge area when mower is running. Bodily harm may occur!
	Unplug and clean mower deck.
Belt slipping	Remove belt guard shields and clean sheaves.
	Replace belt.
	Mow at full throttle (540 PTO rpm), check PTO speed and tractor engine.
	Shift transmission to a lower gear.
Patches of uncut grass	Tighten belts.
Patches of uncut grass	Replace missing knives.
	Replace knives.
	Replace drive belt.
Excessive vibration	Replace pulleys or align.
	Remove belt guard shields & clean debris from belt area & sheaves.
Gearbox noisy	Check lubricant level.
	Raise cutting height by adjusting roller.
Knives scalping grass	Change mowing pattern.
	Reduce speed turns.
	Shift to a lower gear.
Uneven cut	Level mower.
	Replace missing knives.
Treater leaded days by	Mow at full throttle (540 PTO rpm).
Tractor loaded down by mower	Shift to a lower gear.
inowei	Clean mower.

## **SECTION 7: APPENDIX**

#### **BOLT TORQUE**

The tables shown below give correct torque values for various bolts and cap screws. Tighten all bolts to the torques specified unless otherwise noted. Check tightness of bolts periodically, using bolt torque chart as a guide. Replace hardware with the same strength bolt.

## **ENGLISH TORQUE SPECIFICATIONS**

		Bolt Torque					
<b>Bolt Diameter</b>		SAE 2		SAE 5		SAE 8	
	N.m	lb-ft	N.m	lb-ft	N.m	lb-ft	
1/4"	8	6	12	9	17	12	
5/16"	13	10	25	19	36	27	
3/8"	27	20	45	33	63	45	
7/16"	41	30	72	53	100	75	
1/2"	61	45	110	80	155	115	
9/16"	95	60	155	115	200	165	
5/8"	128	95	215	160	305	220	
3/4"	225	165	390	290	540	400	
7/8"	230	170	570	420	880	650	

#### **METRIC TORQUE SPECIFICATIONS**

		Bolt Torque				
Bolt Diameter		8.8		10.9		
	N.m	lb-ft	N.m	lb-ft		
M3	0.5	0.4	1.8	1.3		
M4	3	2.2	4.5	3.3		
M5	6	4	9	7		
M6	10	7	15	11		
M8	25	18	35	26		
M10	50	37	70	52		
M12	90	66	125	92		
M14	140	103	200	148		
M16	225	166	310	229		
M20	435	321	610	450		
M24	750	553	1050	744		
M30	1495	1103	2100	1550		
M36	2600	1917	3675	2710		

Torque figures indicated above are valid for non-greased or non-oiled threads and heads otherwise specified. Therefore, do not grease or oil bolts or cap screws unless otherwise specified in this manual. When using locking elements, increase torque values by 5%.

#### Warranty

TMG warrants to the original purchaser that this product will be free from defects in material and workmanship beginning on the date of purchase by the end user according to the following schedule when used as intended and under normal service and conditions for personal use.

Overall Unit and Driveline: One-year.

Blades and Belts: Considered wear items.

This warranty is limited to the replacement of any defective part by manufacturer and the installation by the dealer of any such replacement part, and does not cover common wear items such as blades, belts, tines, etc. TMG reserves the right to inspect any equipment or parts which are claimed to have been defective in material or workmanship.

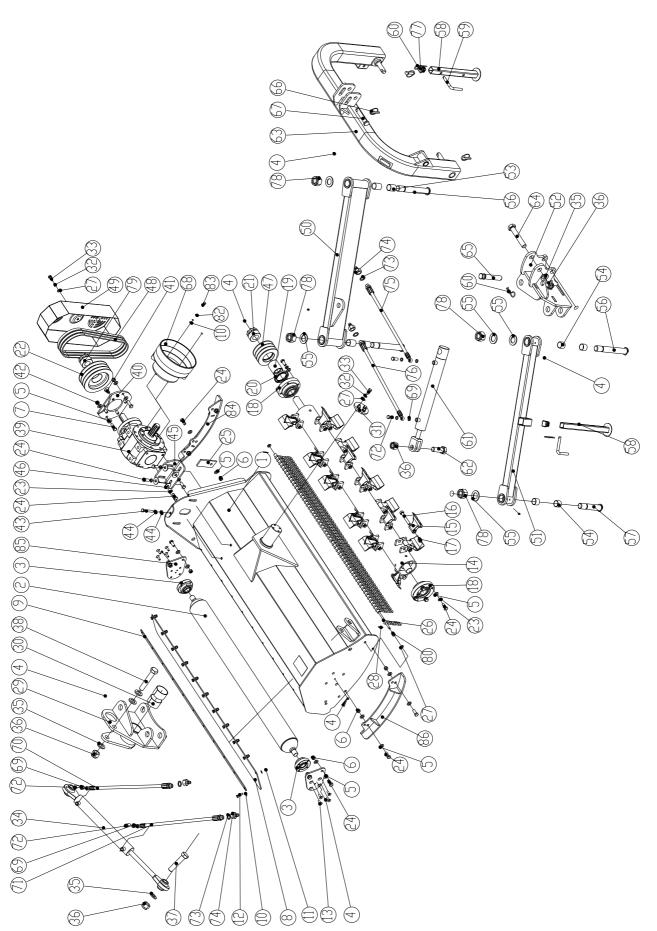
This warranty does not apply to any part or product which in TMG's judgment shall have been misused or damaged by accident or lack of normal maintenance or care, or which has been repaired or altered in a way which adversely affects its performance or reliability, or which has been used for a purpose for which the product not designed. Misuse also specifically includes failure to properly maintain oil levels, grease points, and driveline shafts.

Claims under this warranty must be made to the dealer which originally sold the product and all warranty adjustments must be made through such dealer. TMG reserves the right to make changes in materials or design of the product at any time without notices.

This warranty shall not be interpreted to render TMG liable for damages of any kind, direct, consequential, or contingent to property. Furthermore, TMG shall not be liable for damages resulting from any cause beyond its reasonable control. This warranty does not extend to loss of crops, any expense or loss for labor, supplies, rental machinery or for any other reason. No other warranty of any kind whatsoever, express or implied, is made with respect to this sale; and all implied warranties of merchantability and fitness for a particular purpose which exceed the obligations set forth in this written warranty are hereby disclaimed and excluded from this sale.

## **PART BREAKDOWN LIST**

TMG-TFMO50/TMG-TFMO60/TMG-TFMO70 Part Breakdown



## TMG-TFM050/TMG-TFM060/TMG-TFM070 Part Breakdown List

PART NO.	REF. NO.	PART DESCRIPTION	QTY.	REMARK
	4030100048		1	TMG-TFMO50
1	4030100049	Hood panel	1	TMG-TFMO60
	4030100050		1	TMG-TFMO70
	4030100016		1	TMG-TFMO50
2	4030100017	Roller	1	TMG-TFMO60
	4030100019		1	TMG-TFMO70
3	7070100004	Bearing seat	2	
4	4300400002	Pressure lubricator M8x1	9	
5	7040100006	Plain washer Ø12	31	
6	7030500018	Locknut M12 class 5	9	
7	7010100005	Bolt M12×35	2	
	TFM050.00.00.015		1	TMG-TFMO50
8	TFMO60.00.00.002	Guard rubber plate	1	TMG-TFMO60
	TFM070.00.00.002		1	TMG-TFM070
	4010000033		1	TMG-TFMO50
9	4010000034	Rubber mounting plate	1	TMG-TFMO60
	4010000035		1	TMG-TFM070
	7040100004	Plain washer 8	22	TMG-TFMO50
10			22	TMG-TFM060
			26	TMG-TFM070
11	7030500016	Locknut M8	11	
12	7010100011	Bolt M8×30	11	
13	7020300001	HSCHS M8x25	8	
	4030100058		1	TMG-TFMO50
14	4030100059	Blade axle	1	TMG-TFM060
	4030100060		1	TMG-TFM070
			20	TMG-TFMO50
15	4290200004	Hammer blade	24	TMG-TFMO60
			28	TMG-TFM070
			20	TMG-TFMO50
16	7010500002	Bolt M12x1.5x80	24	TMG-TFMO60
			28	TMG-TFM070
			20	TMG-TFMO50
17	7030800003	Locknut M12x1.5	24	TMG-TFMO60
			28	TMG-TFM070
18	7070100003	Bearing seat	2	

19	4020000020	Oil seal sleeve L=65	1	
20	4100500002	Oil seal TC55x80x8	1	
21	413000001	Swellable sleeve Z3-35x60	1	
22	4050000003	Driving pulley - 3 grooves	1	
23	7040400006	Spring washer 12	12	
24	7010100004	Bolt M12×30	21	
25	4010000029	Sealing plate	1	
26	402000010	Guard chain rod	1	TMG-TFM050
	402000011		1	TMG-TFM060
	4020000013		1	TMG-TFMO70
27	7040100005	Plain washer 10	7	
28	7100100001	Cotter pin Ø3×25	2	
29	4030100056	Overturning bracket	1	
30	7060200003	Oil free bearing 63x68x40	2	
31	4010000028	Limited plate	1	
32	7040400005	Spring washer 10	5	
33	7010100013	Bolt M10×25	5	
34	407000002	Flip cylinder	1	
35	7040100011	Plain washer 24	5	
36	7030500010	Locknut M24	4	
37	7010200006	Bolt M24x110	1	
38	7010200007	Bolt M24x130	1	
39	4040100002	50HP Gearbox	1	
40	4010000030	Adjusting bracket	1	
41	7020300003	HSCHS M12x25	4	
42	7030500006	Locknut M12 class 8	2	
43	7010100040	Bolt M10x70	1	
44	7030700005	Nut M10	2	
45	4010000032	Gearbox mounting bracket	1	
46	7040300006	Large plain washer 12	4	
47	405000004	Driven pulley - 3 grooves	1	
48	4150100001	Belt B991	3	
49	4010000036	Pulley cover	1	
50	4030100052	Big swing arm tube	1	
51	4030100053	Small swing arm tube	1	
52	4030100057	Connecting bracket	1	
53	7060200002	Oil free bearing 30x34x40	4	
54	7060200001	Oil free bearing 30x34x25	4	
1		1	1	1

55					
57         4020000034         Swing pin2         1           58         4030100054         Raker         2           59         402000007         Raker pin         2           60         430010001         R pin φ4x75         3           61         407000003         swing cylinder         1           62         7010200005         Bolt M24x70         1           63         4030100051         Hitch         1           64         7010200008         Bolt M24x140         1           65         4020000035         Safety pin         1           66         4300100004         Safety lock pin φ11x50         3           67         4020000017         Hitch pin -Upper         1           68         4100200006         PTO dust cover         1           69         7040600001         Combined sealing gasket 12         8           70         4080100006         Oil pipe L=3800         1           71         4080100007         Oil pipe L=3350         1           72         7010600001         Hollow bolt M12x1.25x32         4           74         4080100003         G1/2" adaptor (male)         4           75	55	7040100012	Plain washer 30×4	5	
S8	56	4020000033	Swing pin1	3	
59       4020000007       Raker pin       2         60       4300100001       R pin φ4x75       3         61       407000003       swing cylinder       1         62       701020005       Bolt M24x70       1         63       403010051       Hitch       1         64       701020008       Bolt M24x140       1         65       402000035       Safety pin       1         66       430010004       Safety lock pin φ11x50       3         67       402000017       Hitch pin -Upper       1         68       410020006       PTO dust cover       1         69       704060001       Combined sealing gasket 12       8         70       408010006       Oil pipe L=3080       1         71       408010007       Oil pipe L=3350       1         72       7010600001       Hollow bolt M12x1.25x32       4         73       704060005       Combined sealing gasket 22       4         74       408010003       G1/2" adaptor (male)       4         75       4080100004       Oil pipe L=2030       1         76       408010005       Oil pipe L=2030       1         77       41	57	402000034	Swing pin2	1	
60	58	4030100054	Raker	2	
61	59	402000007	Raker pin	2	
62	60	4300100001	R pin φ4x75	3	
63	61	407000003	swing cylinder	1	
64	62	7010200005	Bolt M24x70	1	
65	63	4030100051	Hitch	1	
66 4300100004 Safety lock pin φ11x50 3 67 402000017 Hitch pin -Upper 1 68 410020006 PTO dust cover 1 69 7040600001 Combined sealing gasket 12 8 70 408010006 Oil pipe L=3080 1 71 4080100007 Oil pipe L=3350 1 72 7010600001 Hollow bolt M12x1.25x32 4 73 7040600005 Combined sealing gasket 22 4 74 4080100003 G1/2" adaptor (male) 4 75 4080100004 Oil pipe L=1800 1 76 4080100005 Oil pipe L=2030 1 77 410020007 Cover 30x30 2 78 7030800004 Locknut M30x2 4 79 4130000004 Swellable sleeve Z3-33x60 1 80 4020000040 Chain spacer 62 TMG-TFM050 80 4020000040 Guard chain 62 TMG-TFM050 81 4270100006 Guard chain 62 TMG-TFM050 82 7040400004 Spring washer 8 4 83 7010100006 Bolt M8×20 4	64	7010200008	Bolt M24x140	1	
67	65	402000035	Safety pin	1	
68	66	4300100004	Safety lock pin φ11x50	3	
69         7040600001         Combined sealing gasket 12         8           70         4080100006         Oil pipe L=3080         1           71         4080100007         Oil pipe L=3350         1           72         7010600001         Hollow bolt M12x1.25x32         4           73         7040600005         Combined sealing gasket 22         4           74         4080100003         G1/2" adaptor (male)         4           75         4080100004         Oil pipe L=1800         1           76         4080100005         Oil pipe L=2030         1           77         4100200007         Cover 30x30         2           78         7030800004         Locknut M30x2         4           79         4130000004         Swellable sleeve Z3-33x60         1           80         4020000040         Chain spacer         62         TMG-TFM050           81         427010006         Guard chain         54         TMG-TFM050           81         427010006         Guard chain         62         TMG-TFM060           70         TMG-TFM070         TMG-TFM060         70         TMG-TFM070	67	402000017	Hitch pin -Upper	1	
70	68	4100200006	PTO dust cover	1	
71	69	7040600001	Combined sealing gasket 12	8	
72         7010600001         Hollow bolt M12x1.25x32         4           73         7040600005         Combined sealing gasket 22         4           74         4080100003         G1/2" adaptor (male)         4           75         4080100004         Oil pipe L=1800         1           76         4080100005         Oil pipe L=2030         1           77         4100200007         Cover 30x30         2           78         7030800004         Locknut M30x2         4           79         4130000004         Swellable sleeve Z3-33x60         1           80         4020000040         Chain spacer         62         TMG-TFM050           81         4270100006         Guard chain         54         TMG-TFM060           70         TMG-TFM060         70         TMG-TFM070           82         7040400004         Spring washer 8         4           83         7010100006         Bolt M8×20         4	70	4080100006	Oil pipe L=3080	1	
73         7040600005         Combined sealing gasket 22         4           74         4080100003         G1/2" adaptor (male)         4           75         4080100004         Oil pipe L=1800         1           76         4080100005         Oil pipe L=2030         1           77         4100200007         Cover 30x30         2           78         7030800004         Locknut M30x2         4           79         4130000004         Swellable sleeve Z3-33x60         1           80         4020000040         Chain spacer         62         TMG-TFM050           70         TMG-TFM070         54         TMG-TFM050           81         4270100006         Guard chain         62         TMG-TFM060           70         TMG-TFM070           82         7040400004         Spring washer 8         4           83         7010100006         Bolt M8×20         4	71	4080100007	Oil pipe L=3350	1	
74       4080100003       G1/2" adaptor (male)       4         75       4080100004       Oil pipe L=1800       1         76       4080100005       Oil pipe L=2030       1         77       4100200007       Cover 30x30       2         78       7030800004       Locknut M30x2       4         79       4130000004       Swellable sleeve Z3-33x60       1         80       4020000040       Chain spacer       62       TMG-TFM050         81       4270100006       Guard chain       54       TMG-TFM060         70       TMG-TFM060       70       TMG-TFM070         82       7040400004       Spring washer 8       4         83       7010100006       Bolt M8×20       4	72	7010600001	Hollow bolt M12x1.25x32	4	
75	73	7040600005	Combined sealing gasket 22	4	
76         4080100005         Oil pipe L=2030         1           77         4100200007         Cover 30x30         2           78         7030800004         Locknut M30x2         4           79         4130000004         Swellable sleeve Z3-33x60         1           80         4020000040         Chain spacer         62         TMG-TFM050           70         TMG-TFM070         54         TMG-TFM050           81         4270100006         Guard chain         62         TMG-TFM060           70         TMG-TFM070           82         7040400004         Spring washer 8         4           83         7010100006         Bolt M8×20         4	74	4080100003	G1/2" adaptor (male)	4	
77         4100200007         Cover 30x30         2           78         7030800004         Locknut M30x2         4           79         4130000004         Swellable sleeve Z3-33x60         1           80         4020000040         Chain spacer         62         TMG-TFM050           70         TMG-TFM070         54         TMG-TFM050           81         4270100006         Guard chain         62         TMG-TFM060           70         TMG-TFM070         70         TMG-TFM070           82         7040400004         Spring washer 8         4           83         7010100006         Bolt M8×20         4	75	4080100004	Oil pipe L=1800	1	
78         7030800004         Locknut M30x2         4           79         4130000004         Swellable sleeve Z3-33x60         1           80         4020000040         Chain spacer         53         TMG-TFM050           81         4270100006         Guard chain         54         TMG-TFM050           81         4270100006         Guard chain         62         TMG-TFM060           70         TMG-TFM070           82         7040400004         Spring washer 8         4           83         7010100006         Bolt M8×20         4	76	4080100005	Oil pipe L=2030	1	
79         4130000004         Swellable sleeve Z3-33x60         1           80         4020000040         Chain spacer         62         TMG-TFM050           70         TMG-TFM070           81         4270100006         Guard chain         62         TMG-TFM050           82         7040400004         Spring washer 8         4           83         7010100006         Bolt M8×20         4	77	4100200007	Cover 30x30	2	
80	78	7030800004	Locknut M30x2	4	
80     4020000040     Chain spacer     62     TMG-TFM060       70     TMG-TFM070       81     4270100006     Guard chain     54     TMG-TFM050       82     7040400004     Spring washer 8     4       83     7010100006     Bolt M8×20     4	79	413000004	Swellable sleeve Z3-33x60	1	
TMG-TFM070   TMG-TFM070   54   TMG-TFM050   54   TMG-TFM050   54   TMG-TFM050   54   TMG-TFM060   70   TMG-TFM070   55   TMG-TFM070   55		4020000040	Chain spacer	53	TMG-TFMO50
81     4270100006     Guard chain     54     TMG-TFM050       62     TMG-TFM060       70     TMG-TFM070       82     7040400004     Spring washer 8     4       83     7010100006     Bolt M8×20     4	80			62	TMG-TFMO60
81     4270100006     Guard chain     62     TMG-TFM060       70     TMG-TFM070       82     7040400004     Spring washer 8     4       83     7010100006     Bolt M8×20     4				70	TMG-TFMO70
70 TMG-TFM070  82 7040400004 Spring washer 8 4  83 7010100006 Bolt M8×20 4		4270100006	Guard chain	54	TMG-TFMO50
82 7040400004 Spring washer 8 4 83 7010100006 Bolt M8×20 4	81			62	TMG-TFMO60
83 7010100006 Bolt M8×20 4				70	TMG-TFMO70
	82	7040400004	Spring washer 8	4	
84 4030100360 Skate-R 1	83	7010100006	Bolt M8×20	4	
	84	4030100360	Skate-R	1	
85 4010000204 Roller mounting plate 2	85	4010000204	Roller mounting plate	2	
86 4030100361 Skate-L 1	86	4030100361	Skate-L	1	