

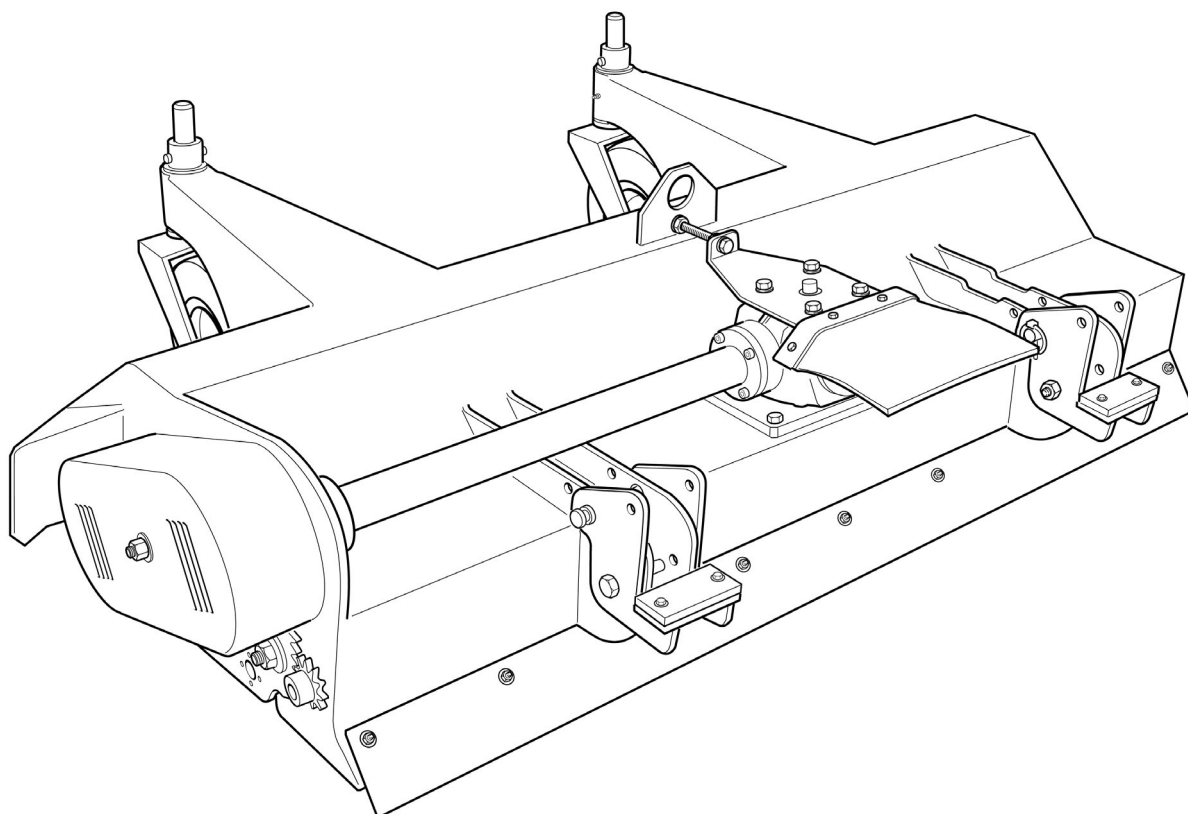


A Broadwood International Product

Operation Manual and Parts Book

Wessex ProLine TGX 150

Outfront Flail Mower



Product Code: L2016



Manufacturers and Distributors of Quality Equipment



Issue: April 2011

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WELCOME TO YOUR NEW WESSEX PROLINE TGX150

Thank you for purchasing a Wessex Proline TG150. As a Broadwood customer, you now number among the most important people of our business and we will endeavour to give you the best service available through our dealer network.

Please read this Manual carefully and familiarise yourself and other persons that will be using the machine with its contents, to ensure the optimum performance and working life of your machine. It is advisable that a copy of this Manual is kept in the workshop and one copy with the machine. Further copies are available through your dealer, or copied yourself

On delivery, your dealer should go through the workings of the machine with you, explaining the setting up procedures, all of which are contained in this manual for further reference. The Warranty Registration Form must also be completed and returned to us **within 7 days of delivery** in order to validate the Warranty.

PLEASE READ THE FOLLOWING PAGES CAREFULLY BEFORE USING YOUR MACHINE AND KEEP THIS MANUAL IN A SAFE PLACE.



**THIS SAFETY SYMBOL IS TO ALERT OPERATORS OF A HAZARD
THAT MAY RESULT IN INJURY.
ALWAYS FOLLOW INSTRUCTIONS CAREFULLY.**

SAFETY DECALS



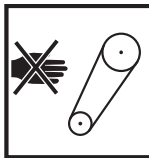
- GB **ATTENTION** Description of pictograms.
 F **ATTENTION** Description des pictogrammes.
 D **VORSICH** Beschreibung der piktogramme.



- GB Read Operating manual before use.
 F Lisez Manual D'Opération avant l'utilisation.
 D Vor der Benutzung, Betriebshandbuch lesen.



- GB Protective eyewear, footwear, gloves and ear protectors must be worn.
 F Lunettes de protection, chaussures gants, protégés-oreilles doivent être portées.
 D Schutzbrille, schuhe, handschuhe und Gehörschutz getragen werden muss.



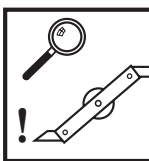
- GB Never remove guards or attempt adjustment until rotor has stopped.
 F Ne retirez jamais les gardes ou d'ajustement tentative jusqu'à ce que toutes les pièces mobiles ont été interrompus.
 D Schutzvorrichtung niemals abnehmen oder einstellung versuchen, bevor der rotor abstellt.



- GB Bystanders must be at least 20 metres from machine range of action.
 F Des spectateurs doivent s'écarter au moins 20 mètres du rayon d'action de la machine.
 D Umstehenden müssen sich mindestens 20 meter vom maschinenbetriebsraum entfernen.



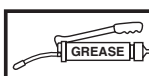
- GB Stand clear. Flying objects possible.
 F S'écarter! Possibilité d'objets volants.
 D Zurückbleiben! Herumfliegende objekte möglich.



- GB Examine blades regularly. The operator is responsible for machine damage caused by unbalanced rotors.
 F Examinez des lames régulièrement. L'opérateur est responsable des dommages à la machine provoqués par des rotors mal équilibrés
 D Klingen regelmäßig kontrollieren. Der abeiter ist an den durch unausgewogenen rotoren maschinenschäden verantwortlich.



- GB Keep hands and feet clear
 F Garder les mains et les pieds.
 D Halten Sie Ihre Hände und Füße.



- GB Grease points
 F Les points de graissage
 D Grease Punkte.

IMPORTANT SAFETY WANINGS



Wessex flail mowers are guarded for your protection, but you must always observe certain elementary precautions. Flail mowers are potentially **dangerous** machines and should be used with the greatest respect and **ALL OPERATORS MUST** read this manual and be aware of all safety precautions.

1. **NEVER** attempt any adjustment whatsoever, unless the machine is **COMPLETELY** at a standstill.
2. **NEVER** attempt to clear any obstructions around the mower unless the machine is **COMPLETELY** at a standstill.
3. **NEVER** remove belt guards unless the machine is **COMPLETELY** at a standstill.
4. **NEVER** remove safety guards which are provided for your protection.
5. **NEVER** operate the mower with people behind, keep everybody (especially children) at a safe distance, **minimum 20 metres**.
6. Stand well back from the machine when cutters are spinning.
7. Regularly inspect the **BLADES AND FIXING BOLTS** to ensure that they are in tip-top condition. Replace blades **IMMEDIATELY** if any signs of fracture or excess wear becomes apparent. Serious damage, which is excluded from our warranty conditions, may result from using your mower with an unbalanced rotor. When replacing blades, always fit new mounting bolts and nuts to ensure that the rotor is balanced and running smoothly.

HEALTH AND SAFETY - Noise at Work Regulations



In compliance with the above regulations, Ear Protectors must be worn when operating machinery.

WARRANTY

Your Broadwood product or equipment is warranted free from defect in workmanship or manufacture for one year from date of purchase. Any parts which appear to us to be defective, either in material or workmanship shall be replaced or repaired at no cost to the purchaser, subject to the following conditions:

1. The registration card enclosed with this booklet must be returned to us within seven days of purchase.
2. Any failure in the machine should be reported in the first instance immediately to your dealer, who will act on your behalf to resolve the matter to your satisfaction.
3. The defective parts will be returned by your dealer to us, accompanied by a full statement describing the failure and the circumstances and conditions in which the failure occurred.
4. The following are specifically excluded from our terms of warranty:
 - a) Fair wear and tear, especially to belts, brushes, blades and spinners.
 - b) Damage to blades or brushes caused through incorrect positioning of the rotor (see instructions).
 - c) Damage caused by neglect or lack of lubrication.
 - d) Damage caused by misuse or abuse.
 - e) Damage caused whilst the machine is in transit.
 - f) Damage caused to the frame of the machine by running the machine with unbalanced rotors, blades or spinners.
 - g) Damage caused to the machine by use with loose nuts, bolts, screws or any other type of fittings.
5. The warranty is for the benefit of the first user only.
6. Broadwood International decisions will be final and binding.

Note:

It is recommended that every machine is inspected after one hour of operation to check that all nuts, bolts, screws or any other types of fixings are tight and any loose fixings or components should be rectified as appropriate.

Further inspections should be carried out at regular intervals thereafter.

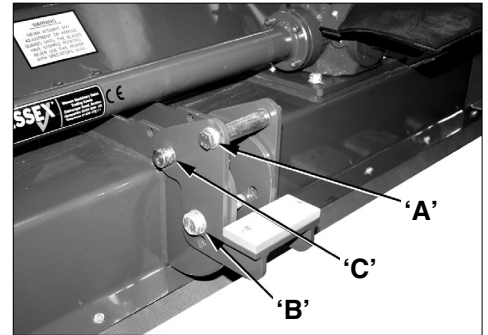
SETTING UP YOUR MOWER

On the Kubota 3680 power unit the link arms that carry the mower deck are part of the power unit.

On the John Deere 45 Series, New Holland MC Series, ISEKI SF300, and the Shibaura units, the link arms are not part of the power unit, they are included as part of the mower deck. These are loose brackets supplied ready to slot into the socket on the front of the power unit and secured with a pin and a lynch pin.

Having secured the link arms into the power unit, ensure that the TGX150 is level when on its wheels and the rear roller, with the mower deck on level ground, drive the power unit up to the mower deck.

- Remove Bolt 'A' from the coupling.
- Remove Bolt 'B' from the coupling, the coupling bracket pivots around Pin 'C'.
- Remove the lynch pin from Pin 'C', partially withdraw Pin 'C' and couple power unit with Pin 'C' and replace lynch pin.
- This must be carried out on both sides of the mower deck.
- Replace Bolt 'A', which is above the arm.
- Pivot the coupling bracket and place Bolt 'B' in the most suitable hole so that the link arm is midway between Bolt 'A' and the nylon plate.
- Do not over tighten Bolt 'B', as this is a pivoting part.
- To uncouple the machine you only need to remove Pin 'C'.



CONNECTING THE PTO SHAFT

Connect the PTO shaft **ensuring that the shaft is not too long for the power unit**. If necessary, the shaft may be easily shortened using a hacksaw, taking care to cut off each tube to the same amount. (See PTO Shaft Operation and Maintenance, pages 18 and 19).

STARTING UP THE MOWER

Make sure that there is no debris or objects underneath the mower deck and that the blades are clear of the ground before engaging the PTO. Set the engine speed to about 1/3 of its normal speed and slowly engage the PTO, then increase engine speed until it reaches its normal speed.

NEVER LIFT THE MACHINE WITH THE PTO ROTATING.

In order to stop the PTO, first reduce the engine speed to about 1/3 of its normal speed then disengage the PTO. Stopping or engaging the PTO suddenly risks damage to the power unit.

SETTING THE CUTTING HEIGHT

Cut for approximately one metre and then adjust cutting height if required.

This should be done simultaneously via the front wheels and the rear roller to ensure the machine is kept level.

ADJUSTING THE FRONT WHEELS

- Raise the machine using the hydraulics on the power unit.
- Remove the cross bolt from the bush, raise or lower the wheel by the desired number of holes.
- Replace the cross bolt in the bush and tighten.

ADJUSTING THE ROLLER

- Raise the machine using the hydraulics on the power unit.
- Slacken off the clamp bolts on either side of the roller carrier arm. The roller then drops to its bottom position.
- Lower the machine onto its front wheels until the roller adjusts itself automatically when the machine is horizontal.
- For fine adjustment, use a spanner on the sprocket nut.
- Tighten the clamp bolt on slots.
- Check that the cutting height is right.
- Make sure there is no one facing the machine, that there no risk of blades expelling any debris and then engage the mower's power take-off with the engine at low revs. Gradually increase the engine speed until you reach nominal speed.
- If the machine vibrates, stop the PTO and find out the reason, Having solved this, then start working, adjusting the speed of forward movement according to the density of the vegetation that is being cut.

MAINTENANCE

- **IMPORTANT!** Check that all fastening sets (bolts and nuts) are tight after the first hour of operation.

BELT ADJUSTMENT

- The belts are tensioned in the factory but they will stretch after two or three hours work. It is important to check and re-tension after three hours work.
- Remove the belt cover from the mower deck by removing the central fastening nut.
- To tighten the belts, remove the belt cover, slacken off the 4 bolts over the slots in the gearbox mounting plate.
- Loosen off the nuts on the two adjusting threads and adjust belts by turning the adjusters, always both ends the same amount and check pulley alignment before re-tightening the bolts.
- **NOTE!** Correct belt tension is approximately 12-15mm of deflection under thumb pressure, halfway between the pulleys.
- If the belts are cut, frayed or damaged in any way, they should be replaced immediately.
- Re-fit the belt cover and tighten the fastening nut.

LUBRICATION

DAILY (8-10 working hours)

- Grease Main Rotor bearings. (x2)
- Grease Roller bearings (x2)
- Grease Wheel castors (x2)
- Grease Wheel bearings (x2)

GEARBOX

Check the oil level periodically, the level plug is situated halfway down the gearbox, close to the cross shaft.

Top up the gearbox with a 90 grade gear oil.

FLAIL BLADES

- The condition of the flail blades should be inspected daily. Damaged flail blades cause imbalance in the rotor and in turn, will cause serious damage to the mower, **which is specifically excluded from our Warranty Conditions.**
- If the mower begins to vibrate, stop work immediately and investigate. Almost certainly the cause will be damaged flail blades, or foreign objects around the flail rotor.

FLAIL BLADES - CHANGING

- When fitting new flail blades, unhitch the mower from the tractor and turn the mower over (preferably with a hoist or mechanical lifting equipment). Remove the damaged flail blades and replace.
- It is important that the rotor remains balanced. Always fit new bolts and nuts when replacing the flails and preferably fit a full set. If only one or two flails are being replaced, they should be fitted opposite to each other on the rotor, to keep the rotor balanced.

TROUBLESHOOTING

FAULT	CAUSE	REMEDY
Leaving wheel track uncut	1. Forward speed too fast 2. Cutting height too high	Reduce forward speed. Lower cutting height.
Bad quality of cut	1. Forward speed too fast 2. Excessive blade wear 3. Belts slipping	Reduce forward speed. Replace blades. Tighten belts.
Narrow strip uncut	1. Possibly missing or broken blade	Inspect blades and replace as necessary.
Excessive vibration	1. Damaged or missing blades 2. Bent flail rotor 3. Main rotor bearing failed 4. Loose part 5. Worn or bent PTO Shaft	Inspect and replace blades. Inspect rotor. Inspect bearing, replace if damaged. Check all nuts & bolts are tight. Inspect PTO Shaft, replace if damaged.
Excessive scalping	1. Cutting height too low	Raise cutting height.

WINTER STORAGE

Before winter storage, the TGX150 should be thoroughly inspected.

- Repair or replace any worn or broken parts.
- Take special care to look at the flail blades, rotor and the bearings.
- Remove the belts and ensure that the rotor is free-spinning.
- Make sure that the belts are in good condition before re-fitting.
- Thoroughly wash the machine to remove all oil, grease, debris and materials.
- Grease up all grease points before storage to avoid any corrosion.

SAFETY TRAINING INDUCTION

The undersigned personnel have been trained in the safe use of the Wessex TGX150 and have understood the contents of the Operator's Manual.

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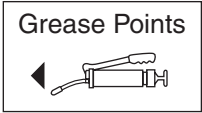
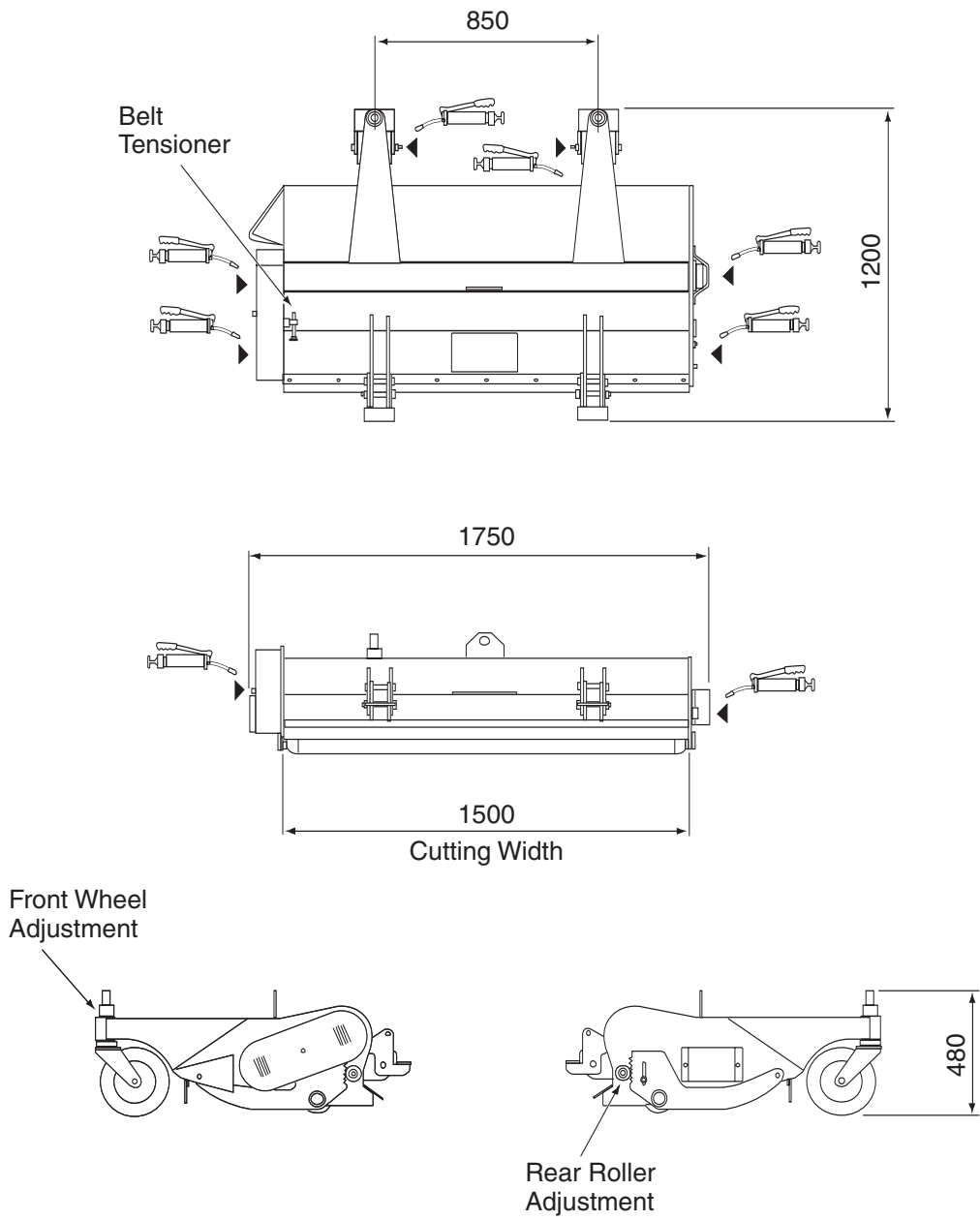
DAILY INSPECTION RECORD

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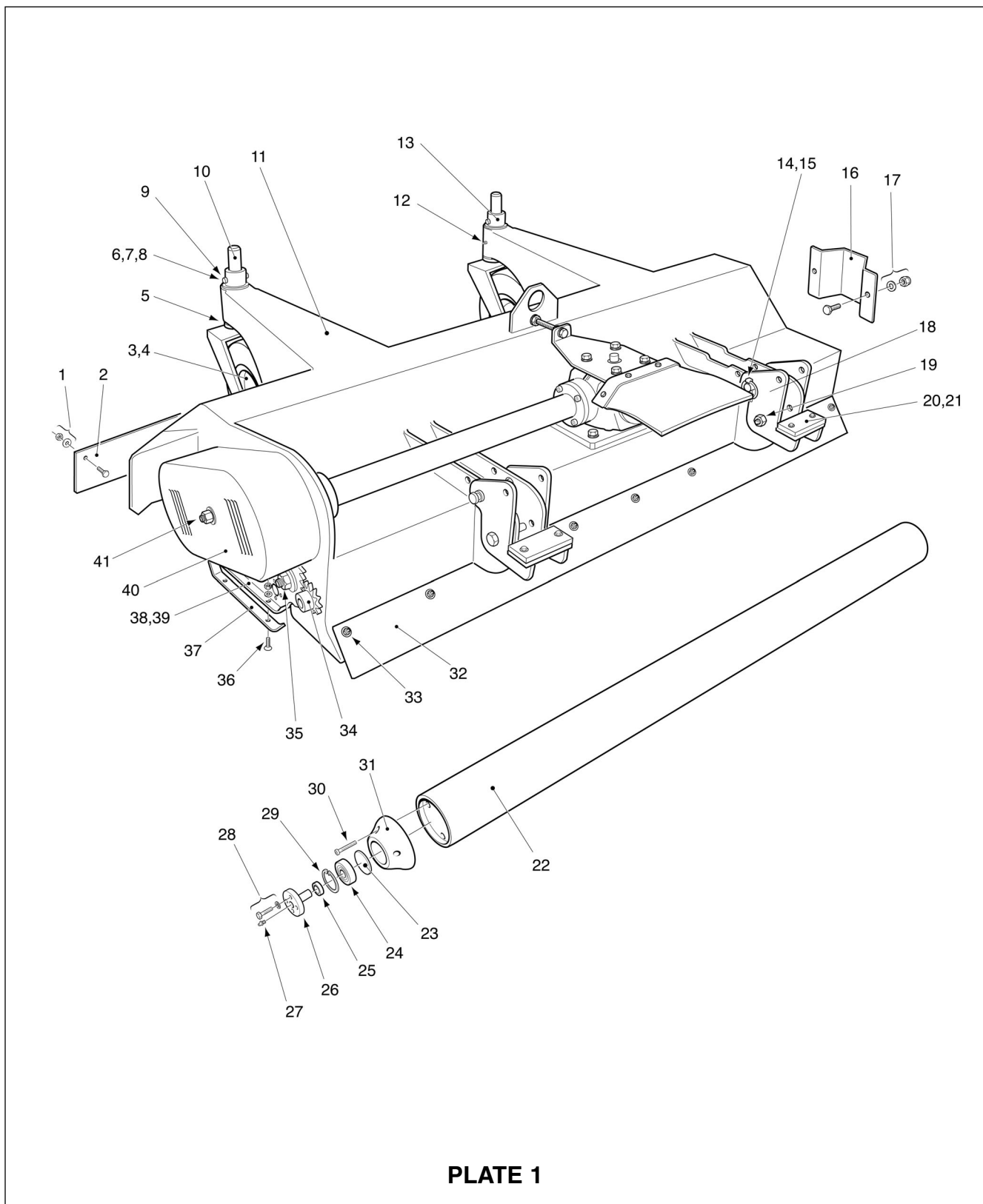
SPECIFICATION

MODEL: TGX150

Cutting Width:	1.50m	Weight:	220kg
Overall Width:	1.75m	Cutting Height Range:	25 - 100mm
Overall Length	1.2m	Solid Tyres	
No. of Flails:	32		



PARTS ILLUSTRATION TGX150 BODY



PA R TS LIST TGX150 BODY - PLATE 1

Item No.	Part No.	Description	Qty. per Machine
1	31201	Rubber Skirt F/Set	1
2	12778	Rubber Skirt 	1
3	4652	Wheel	2
4	30601	Wheel Axle Bolt	2
5	13851	Castor Bush Spacer	2
6	14051	Castor Washer	2
7	14151	Castor Bush Top Plate	2
8	4522	Circlip	2
9	33101	Retaining Bolt	2
10	14251	Wheel Fork	2
11	12179	Main Deck	1
12	0246	Grease Nipple	2
13	13951	Castor Body Carrier	2
14	0227	Lynch Pin	2
15	0426	Pin	2
16	13777	Bearing Protector	1
17	30801	Bearing Protector F/Set	1
18	8658	Tractor Bracket	2
19	30901	Bolt Set	2
20	8758	Pad	2
21	31901	Pad F/Set	2
22	3355	Roller	1
23	3355A	Roller Blanking Plug	2
24	0838	Roller Bearing	2
25	3755	Roller Spacer	2
26	3555	Roller Mount	2
27	0246	Grease Nipple	2
28	31101	Roller Mount F/Set	2
29	4422	Circlip	2
30	31001	Roller End F/Set	2
31	3655	Roller End	2
32	12778	Skirt	1
33	31201	Skirt F/Set	1
34	15056	Adjusting Shaft Assembly	1
35	31301	Roller Arm Clamp Bolt	2
36	8503	Skid Shoe F/Set	2
37	4274	Skid Shoe	2
38	3774	Roller Arm Left Hand	1
39	3674	Roller Arm Right Hand	1
40	13877	Drive Cover	1
41	31401	Drive Cover F/Set	1
N/S	22580	Bump Stop Bracket - New Holland only	1
N/S	22080	Rubber Block - New Holland only	1
N/S	12179	Skirt Clamp Bar	2

This exploded view diagram illustrates the assembly of a mechanical component, likely a conveyor system. The parts are numbered 1 through 35. The diagram shows the following components and their assembly relationships:

- Part 32, 33, 34, 35:** A long shaft with a pulley at one end and a mounting bracket at the other.
- Part 1:** A small pin or screw.
- Part 2:** A small bush or spacer.
- Part 3:** A pulley wheel.
- Part 4:** A mounting plate with a hole for a pin.
- Part 5:** A small bush or spacer.
- Part 6:** A small pin or screw.
- Part 7:** A long shaft with multiple pulleys.
- Part 8:** A small pin or screw.
- Part 9:** A small bush or spacer.
- Part 10:** A small pin or screw.
- Part 11:** A small bush or spacer.
- Part 12:** A small pin or screw.
- Part 13:** A mounting plate with a hole for a pin.
- Part 14:** A small bush or spacer.
- Part 15:** A small pin or screw.
- Part 16, 17:** A small pin or screw.
- Part 18, 19:** A small pin or screw.
- Part 20:** A large mounting plate with multiple holes.
- Part 21:** A long shaft with a pulley at one end.
- Part 22:** A pulley wheel.
- Part 23:** A pulley wheel.
- Part 24:** A pulley wheel.
- Part 25:** A small pin or screw.
- Part 26, 28, 30:** A long shaft with a pulley at one end.
- Part 27, 29, 31:** A long shaft with a pulley at one end.

The diagram shows the assembly of the shafts and pulleys, with the mounting plates (4, 13, 20) being attached to the shafts using the pins and bushings. The shafts are shown in various orientations to illustrate their assembly into the overall structure.

Item No.	Part No.	Description	Qty. per Machine
1	0547	Key	1
2	11062	Taper Lock	1
3	10862	Rotor Pulley	1
4	7438	Bearing	2
5	13977	Bearing Shield	2
6	31601	Bearing Shield F/Set	2
7	14466	Rotor Shaft	1
8	18593	Flail Bolt	32
9	10170	Flail	32
10	12557	Anchor	1
11	21580	Adjuster	1
12	31701	Bolt	1
13	30801	Tensioning Thread	1
14	13857	Tensioning Plate	1
15	12857	G'box Complete -Kubota/New Holland/Iseki/Shibura	1
15	12757	G'box Complete - John Deere	1
16	13757	Gearbox Tensioning Plate	1
17	30601	Adjuster F/Set	1
18	13677	Rubber Mount Bracket	1
19	30701	Rubber Mount Bracket F/Set	1
20	12978	Rubber Flap	1
21	12657	Arm Support	1
22	5034	Drive Belt	2
23	10962	Gearbox Pulley	1
24	11062	Taper Lock	1
25	0547	Key	1
26	9158	Shibura Link Arm - L/H	1
27	9058	Shibura Link Arm - R/H	1
28	8958	John Deere Link Arm - L/H	1
29	8858	John Deere Link Arm - R/H	1
30	10358	Iseki Link Arm - L/H	1
31	10258	Iseki Link Arm - R/H	1
32	6781	PTO Shaft Complete - John Deere	1
33	6881	PTO Shaft Complete - Kubota	1
34	7281	PTO Shaft Complete - Shibura/New Holland	1
35	7381	PTO Shaft Complete - Iseki	1
36	7481	PTO Shaft Cover	1
N/S	14666	Rotor Spacer	2

PTO SHAFT OPERATION AND MAINTENANCE

IMPORTANT!

PTO drive shafts must only be used for their intended purpose.

PTO drive shafts are designed for specific machine types and power requirements.

They must not be replaced by other models.

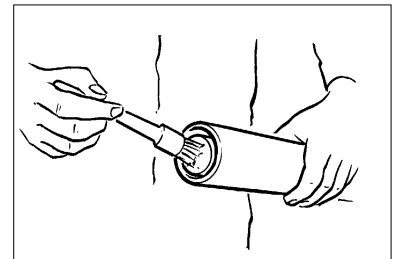
Ensure that the PTO drive shaft is securely connected.

Only use a completely protected drive system:

PTO drive shaft with complete guard and complementary guard on tractor and implement. A complete guard is essential in all working positions.

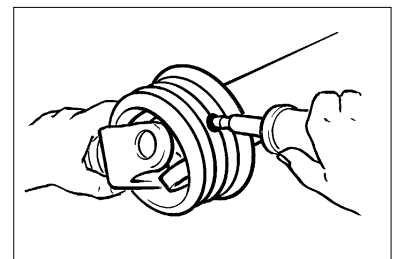
LUBRICATION

Lubricate with quality grease before starting work and every 8 operating hours.



Clean and grease the PTO drive shaft before each prolonged period of non-use.

Grease the guard tubes in winter to prevent freezing.

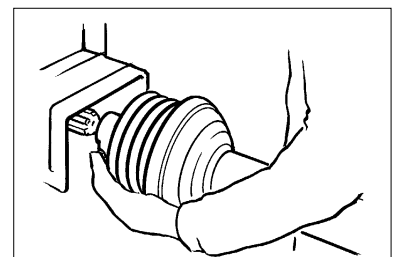


COUPLING THE PTO SHAFT

Clean and grease the PTO and PIC

Q.-d pin

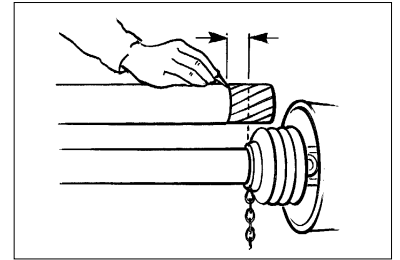
Press q.-d. pin and simultaneously push PTO drive shaft onto PTO until pin engages.



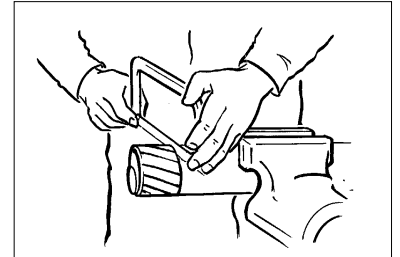
PTO SHAFT OPERATION AND MAINTENANCE

LENGTH ADJUSTMENT

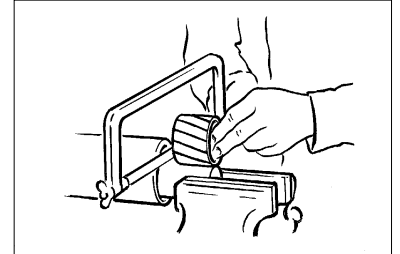
To adjust the length, hold the half-shafts next to each other in the shortest working position and mark them.



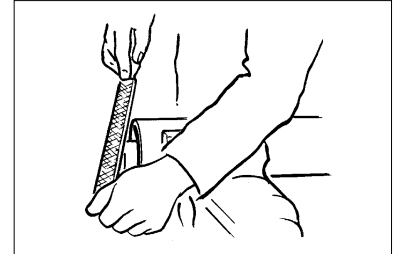
Shorten inner and outer guard tubes equally.



Shorten inner and outer sliding profiles by the same length as the guard tubes.



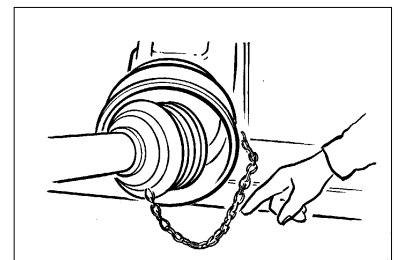
Round off all sharp edges and remove burrs.
Grease sliding profiles.



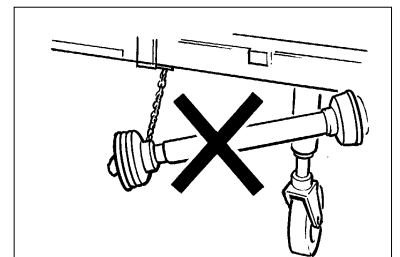
No other changes may be made to the PTO drive shaft and guard

CHAINS

Chains must be fitted so as to allow sufficient articulation of the shaft in all working positions.



The PTO drive shaft must not be suspended from the chains!





Certificate of CE Conformity

Machine Model:

TGX 150

Description:

Flail Mower

*I hereby certify that the machine detailed hereon
conforms to:*

**European Directives 89/392EEC
as amended 91/368EEC - 93/44EEC - 93/68EEC**

Signed:

.....
Quality Manager

Date:

06 June 2008



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