

TWOSE WINCHES

Models: TW4050 & TW6550
Operation & Parts Manual

Publication 754

August 2013 (Rev.05.04.16)

IMPORTANT VERIFICATION OF WARRANTY REGISTRATION



DEALER WARRANTY INFORMATION & REGISTRATION VERIFICATION

It is imperative that the selling dealer registers this machine with Twose of Tiverton Limited before delivery to the end user – failure to do so may affect the validity of the machine warranty.

To register machines go to the Twose web site at www.twose.com, log onto 'Dealer Inside' and select the 'Machine Registration button' which can be found in the Service Section of the site. Confirm to the customer that the machine has been registered in the section below.

Should you experience any problems registering a machine in this manner please contact the Twose Office on 01884 253691.

Registration Verification

Dealer Name:
Dealer Address:
Customer Name:
Date of Warranty Registration:/...../..... Dealer Signature:

NOTE TO CUSTOMER / OWNER

Please ensure that the above section above has been completed and signed by the selling dealer to verify that your machine has been registered with Twose of Tiverton Limited.

IMPORTANT: During the initial 'bedding in' period of a new machine it is the customer's responsibility to regularly inspect all nuts, bolts and hose connections for tightness and re-tighten if required. New hydraulic connections occasionally weep small amounts of oil as the seals and joints settle in – where this occurs it can be cured by re-tightening the connection – *refer to torque settings chart below*. The tasks stated above should be performed on an hourly basis during the first day of work and at least daily thereafter as part of the machines general maintenance procedure.

TORQUE SETTINGS FOR HYDRAULIC FITTINGS

HYDRAULIC HOSE ENDS		
BSP	Setting	Metric
1/4"	18 Nm	19 mm
3/8"	31 Nm	22 mm
1/2"	49 Nm	27 mm
5/8"	60 Nm	30 mm
3/4"	80 Nm	32 mm
1"	125 Nm	41 mm
1.1/4"	190 Nm	50 mm
1.1/2"	250 Nm	55 mm
2"	420 Nm	70 mm

PORT ADAPTORS WITH BONDED SEALS		
BSP	Setting	Metric
1/4"	34 Nm	19 mm
3/8"	47 Nm	22 mm
1/2"	102 Nm	27 mm
5/8"	122 Nm	30 mm
3/4"	149 Nm	32 mm
1"	203 Nm	41 mm
1.1/4"	305 Nm	50 mm
1.1/2"	305 Nm	55 mm
2"	400 Nm	70 mm

WARRANTY POLICY

WARRANTY REGISTRATION

All machines must be registered, by the selling dealer with Twose of Tiverton Ltd, before delivery to the end user. On receipt of the goods it is the buyer's responsibility to check that the Verification of Warranty Registration in the Operator's Manual has been completed by the selling dealer.

1. LIMITED WARRANTIES

- 1.01. *All machines supplied by Twose of Tiverton Ltd are warranted to be free from defects in material and workmanship from the date of sale to the original purchaser for a period of 12 months, unless a different period is specified.*
- 1.02. *All spare parts supplied by Twose of Tiverton Ltd and purchased by the end user are warranted to be free from defects in material and workmanship from the date of sale to the original purchaser for a period of 6 months. All parts warranty claims must be supported by a copy of the failed part invoice to the end user. We cannot consider claims for which sales invoices are not available.*
- 1.03. *The warranty offered by Twose of Tiverton Ltd is limited to the making good by repair or replacement for the purchaser any part or parts found, upon examination at its factory, to be defective under normal use and service due to defects in material or workmanship. Returned parts must be complete and unexamined. Pack the component(s) carefully so that any transit damage is avoided. All ports on hydraulic items should be drained of oil and securely plugged to prevent seepage and foreign body ingress. Certain other components, electrical items for example, may require particular care when packing to avoid damage in transit.*
- 1.04. *This warranty does not extend to any product from which Twose of Tiverton Ltd's serial number plate has been removed or altered.*
- 1.05. *This warranty does not apply to any part of the goods, which has been subjected to improper or abnormal use, negligence, alteration, modification, fitment of non-genuine parts, accident damage, or damage resulting from contact with overhead power lines, damage caused by foreign objects (e.g. stones, iron, material other than vegetation), failure due to lack of maintenance, use of incorrect oil or lubricants, contamination of the oil, or which has served its normal life. This warranty does not apply to any expendable items such as blades, belts, clutch linings, filter elements, flails, flap kits, skids, soil engaging parts, shields, guards, wear pads, pneumatic tyres or tracks.*
- 1.06. *Temporary repairs and consequential loss - i.e. oil, downtime and associated parts are specifically excluded from the warranty.*
- 1.07. *Warranty on hoses is limited to 12 months and does not include hoses which have suffered external damage. Only complete hoses may be returned under warranty, any which have been cut or repaired will be rejected.*
- 1.08. *Machines must be repaired immediately a problem arises. Continued use of the machine after a problem has occurred can result in further component failures, for which Twose of Tiverton Ltd cannot be held liable, and may have safety implications.*
- 1.09. *If in exceptional circumstances a non Twose of Tiverton Ltd part is used to effect a repair, warranty reimbursement will be at no more than Twose of Tiverton Ltd's standard dealer cost for the genuine part.*
- 1.10. *Except as provided herein, no employee, agent, dealer or other person is authorised to give any warranties of any nature on behalf of Twose of Tiverton Ltd.*
- 1.11. *For machine warranty periods in excess of 12 months the following additional exclusions shall apply:*
 - 1.11.1. *Hoses, exposed pipes and hydraulic tank breathers.*
 - 1.11.2. *Filters.*
 - 1.11.3. *Rubber mountings.*
 - 1.11.4. *External electric wiring.*
 - 1.11.5. *Bearings and seals.*

- 1.12. All service work, particularly filter changes, must be carried out in accordance with the manufacturer's service schedule. Failure to comply will invalidate the warranty. In the event of a claim, proof of the service work being carried out may be required.
- 1.13. Repeat or additional repairs resulting from incorrect diagnosis or poor quality previous repair work are excluded from warranty.

NB Warranty cover will be invalid if any non-genuine parts have been fitted or used. Use of non-genuine parts may seriously affect the machine's performance and safety. Twose of Tiverton Ltd cannot be held responsible for any failures or safety implications that arise due to the use of non-genuine parts.

2. REMEDIES AND PROCEDURES

- 2.01. The warranty is not effective unless the Selling Dealer registers the machine, via the Twose of Tiverton Ltd web site and confirms the registration to the purchaser by completing the confirmation form in the operator's manual.
- 2.02. Any fault must be reported to an authorised Twose of Tiverton Ltd dealer as soon as it occurs. Continued use of a machine, after a fault has occurred, can result in further component failure for which Twose of Tiverton Ltd cannot be held liable.
- 2.03. Repairs should be undertaken within two days of the failure. Claims submitted for repairs undertaken more than 2 weeks after a failure has occurred, or 2 days after the parts were supplied will be rejected, unless the delay has been authorised by Twose of Tiverton Ltd. Please note that failure by the customer to release the machine for repair will not be accepted as a reason for delay in repair or submitting warranty claims.
- 2.04. All claims must be submitted, by an authorised Twose of Tiverton Ltd Service Dealer, within 30 days of the date of repair.
- 2.05. Following examination of the claim and parts, Twose of Tiverton Ltd will pay, at their discretion, for any valid claim the invoiced cost of any parts supplied by Twose of Tiverton Ltd and appropriate labour and mileage allowances if applicable.
- 2.06. The submission of a claim is not a guarantee of payment.
- 2.07. Any decision reached by Twose of Tiverton Ltd is final.

3. LIMITATION OF LIABILITY

- 3.01. Twose of Tiverton Ltd disclaims any express (except as set forth herein) and implied warranties with respect to the goods including, but not limited to, merchantability and fitness for a particular purpose.
- 3.02. Twose of Tiverton Ltd makes no warranty as to the design, capability, capacity or suitability for use of the goods.
- 3.03. Except as provided herein, Twose of Tiverton Ltd shall have no liability or responsibility to the purchaser or any other person or entity with respect to any liability, loss, or damage caused or alleged to be caused directly or indirectly by the goods including, but not limited to, any indirect, special, consequential, or incidental damages resulting from the use or operation of the goods or any breach of this warranty. Notwithstanding the above limitations and warranties, the manufacturer's liability hereunder for damages incurred by the purchaser or others shall not exceed the price of the goods.
- 3.04. No action arising out of any claimed breach of this warranty or transactions under this warranty may be brought more than one (1) year after the cause of the action has occurred.

4. MISCELLANEOUS

- 4.01. Twose of Tiverton Ltd may waive compliance with any of the terms of this limited warranty, but no waiver of any terms shall be deemed to be a waiver of any other term.
- 4.02. If any provision of this limited warranty shall violate any applicable law and is held to be unenforceable, then the invalidity of such provision shall not invalidate any other provisions herein.
- 4.03. Applicable law may provide rights and benefits to the purchaser in addition to those provided herein.



DECLARATION OF CONFORMITY

Conforming to EU Machinery Directive 2006/42/EC

We,

TWOSE of TIVERTON LIMITED,
6 Chinon Court, Lower Moor Way,
Tiverton Business Park, Tiverton, Devon, EX16 6SS, UK

Hereby declare that:

The Product; *Tractor Mounted Winch*

Product Code; *TWMW*

Serial No. & Date Type

Manufactured in; *Denmark*

Complies with the required provisions of the Machinery Directive 2006/42/EC
The machinery directive is supported by the following harmonized standards;

- BS EN ISO 12100 (2010) Safety of machinery – General principles for design – Risk assessment and risk reduction.
- BS EN 349 (1993) + A1 (2008) Safety of machinery - Minimum distances to avoid the entrapment with human body parts.
- BS EN 953 (1997) + A1 (2009) Safety of machinery - Guards general requirements for the design and construction of fixed and movable guards.
- BS EN 4413 (2010) Hydraulic fluid power. Safety requirements for systems and their components.

Signed  *Responsible Person*
CHRISTIAN DAVIES on behalf of TWOSE OF TIVERTON LIMITED

Status: *General Manager*

Date: *September 2015*

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GENERAL INFORMATION

Always read this manual before fitting or operating the machine – whenever any doubt exists contact your dealer or the Twose Service Department for advice and assistance.

Use only Twose Genuine Service Parts on Twose Equipment and Machines

DEFINITIONS: The following definitions apply throughout this manual;

WARNING

An operating procedure, technique etc., which –
can result in personal injury or loss of life if not observed carefully.

CAUTION

An operating procedure, technique etc., which –
can result in damage to either machine or equipment if not observed carefully.

NOTE

An operating procedure, technique etc., which –
is considered essential to emphasis.

LEFT AND RIGHT HAND

This term is applicable to the machine when attached to the tractor and is viewed
from the rear – this also applies to tractor references.

MACHINE & DEALER INFORMATION

Record the Serial Number of your machine on this page and always quote this number when ordering parts. Whenever information concerning the machine is requested remember also to state the make and model of tractor to which the machine is fitted.

Machine Serial Number:	Installation Date:
Machine Model details:	
Dealer Name:	
Dealer Address:	
Dealer Telephone No:	
Dealer Email Address:	

MACHINE DESCRIPTION & PURPOSE OF USE

The TW4050 & TW6550 are three-point linkage tractor mounted winches primarily designed for the extraction of fallen timber in forests and woodland areas.



Note; The machines should only be used to perform tasks for which it is designed – use of the machine for any other function may be both dangerous to persons and damaging to components and is therefore not advisable.

TECHNICAL DATA

Technical Specifications

Specification	Model TW4050	Model TW6550
<i>Pulling Power</i>	4000 kg / 8800 lbs.	6500 kg / 14300 lbs.
<i>Clutch</i>	385 cm ²	500 cm ²
<i>Transmission</i>	5/8" roller chain	2 x 5/8" roller chain
<i>Cable (Wire)</i>	3/8" x 167'	7/16" x 167'
<i>Cable (Wire) Speed</i>	0.6 – 1.5 m/s	0.5 – 1.5 m/s
<i>PTO Shaft</i>	540 rpm	540 rpm
<i>Weight</i>	298 kg / 657 lbs.	441 kg / 972 lbs.

SAFETY INFORMATION

General safety rules:

- ▲ All operators must read this manual fully before attempting to use the machine.
- ▲ Never attempt to operate the machine without proper training.
- ▲ Do not allow others to operate the machine without proper training.
- ▲ Keep hands, feet and clothing clear of all moving parts on the machine.
- ▲ Never handle the cable without stopping the PTO shaft.
- ▲ Always ensure the cable is in good condition before operating the winch; *if a cable were to break parts can fly both towards and away from the winch.*
- ▲ Always ensure the unit is parked on firm level ground for winching operations.
- ▲ Never transport logs directly in the cable – use the log towing bar.
- ▲ The machine has been constructed to skid and push felled timber that is lying on the ground, the machine must never be used to pull vertical trees or timber that is wedged or jammed. *Improper use of the machine is highly dangerous to persons and damaging to the machine components.*
- ▲ Both operators and the maintenance fitters should be familiar with the machine and fully aware of the dangers that surround improper use or incorrect repairs.
- ▲ Before starting, checks to both tractor and machine should be carried out with regard to functionality, road safety, and accident prevention.
- ▲ During checks and/or repairs, make sure nobody could start the machine by mistake.
- ▲ Never wear loose or fluttering clothes in close proximity to the machine.
- ▲ Never connect the power takeoff with the engine running.
- ▲ Do not enter the working zone of the PTO shaft. It is dangerous to approach any rotating parts of a machine.
- ▲ Keep the PTO shaft guard and machine safety guarding in good condition.
- ▲ Before starting, check the surrounding area for the likely presence of persons and/or animals. Do not use the machine if persons or animals are in close proximity.
- ▲ Stop the machine immediately if persons or animal enter the work area.
- ▲ The PTO shaft must be assembled and disassembled only with the engine stopped and the starting key removed.
- ▲ Before connecting the power takeoff, check that the speed and the rotational direction correspond to those of the machine.
- ▲ Immediately replace any missing or damaged safety decals.
- ▲ Never carry passengers on the tractor.
- ▲ Never carry passengers on the machine
- ▲ Before leaving the tractor with the machine attached, proceed as follows:
 1. *Disconnect the power takeoff,*
 2. *Put the machine steadily on the ground using the tractor's hydraulic lift.*
 3. *Apply the hand brake and, if the ground is steeply sloping, wedge the tractor.*
 4. *Remove and pocket the starting key.*

Although the information given here covers a wide range of safety subjects, it is impossible to predict every eventuality that can occur under differing circumstances whilst operating this machine. No advice given here can replace 'good common sense' and 'total awareness' at all times, but will go a long way towards the safe use of your Twose machine.

FITTING THE MACHINE

Attaching Machine to Tractor

The machine is mounted and carried on the 3-point linkage of the tractor. Attachment of the machine to the tractor must always be performed on a firm level site; the procedure is as follows:

Attach the lower linkage points of the machine to tractor links using the linkage pins provided and fix in place with security pins.

Fit and adjust the top link to bring the machine into the vertical position ensuring the machine does not foul on tractor components when it is raised and lowered on the hydraulics.

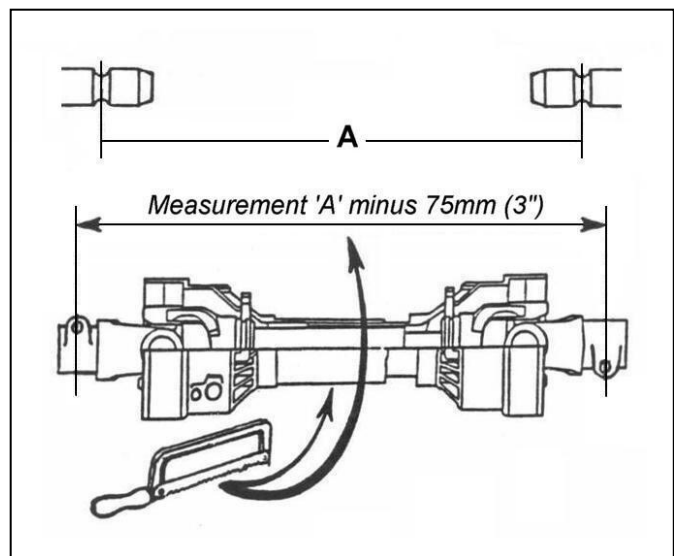
Fit PTO Shaft, check the length of the PTO shaft both in working and transport position and shorten if required – *refer to following paragraphs for details of measuring and cutting.*

PTO Shaft Measurement

Measure the PTO shaft and cut to the dimension shown; the finished length of the PTO shaft should be 75mm (3") less than the measured distance 'A' between tractor shaft and stub shaft of the machine to enable fitting.

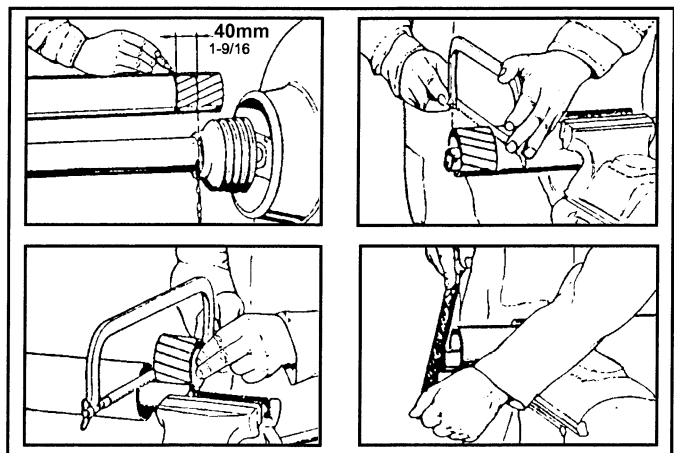
NOTE: For subsequent use with different tractors measure again, there must be a minimum shaft overlap of 150mm (6").

Fit PTO in position and attach the torque chains to a convenient location to prevent the shaft guards from rotating.



PTO Shaft Length Adjustment

1. Shorten outer plastic tube to 40mm less than the shortest envisaged shaft length.
2. Remove the marked tube.
3. Remove same length from inner plastic tube and metal shaft profiles (inner and outer).
4. De-burr all edges and remove 'swarf' to ensure smooth operation.

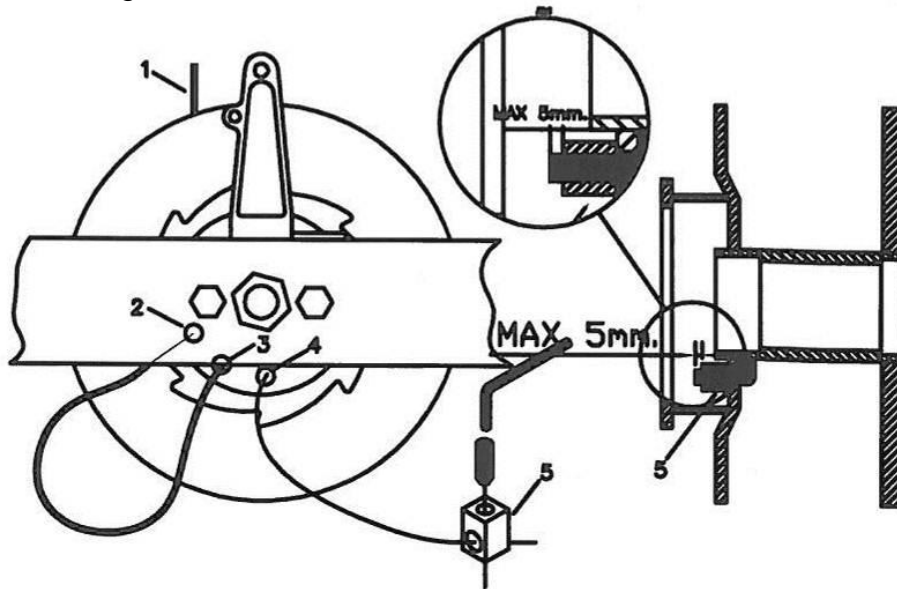


Machine Lubrication & Maintenance

- Lubricate PTO shaft on a daily basis.
- Grease rotating plate of top pulley on a daily basis
- Lubricate drive chain on a weekly basis.

Mounting Cable onto Drum

Fit the cable by leading it over the uppermost roller onto the drum. Feed approximately 1m of cable #1, (see illustration below), out through hole #2 then return it through hole #3 and finally back out through hole #4.



Fix cable to drum by feeding the end of the cable (*5mm maximum*) into the fixing block #5 and secure in place with its Allen Screw using the Allen Key supplied.

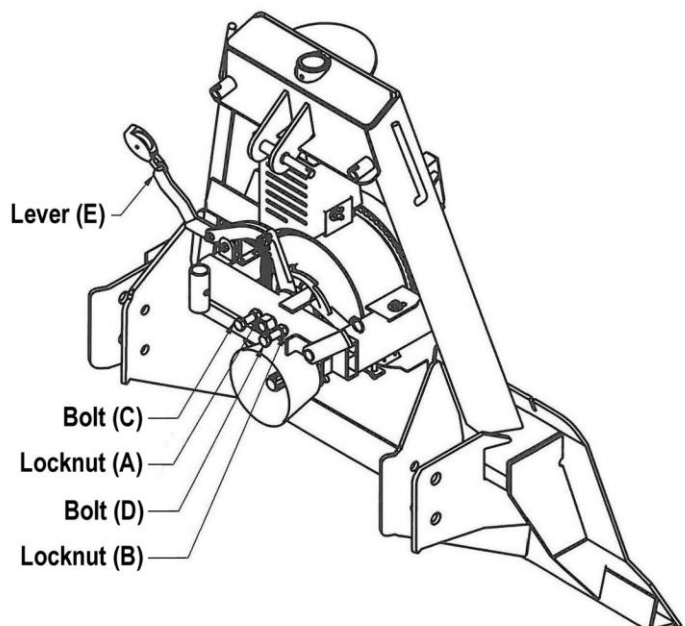
Draw the cable back so that the fixing block is inside the toothed rim adjacent to hole #4.

Roll out the cable completely before then winding it onto the drum applying tension as you do so to keep the cable taut.

Clutch Adjustment

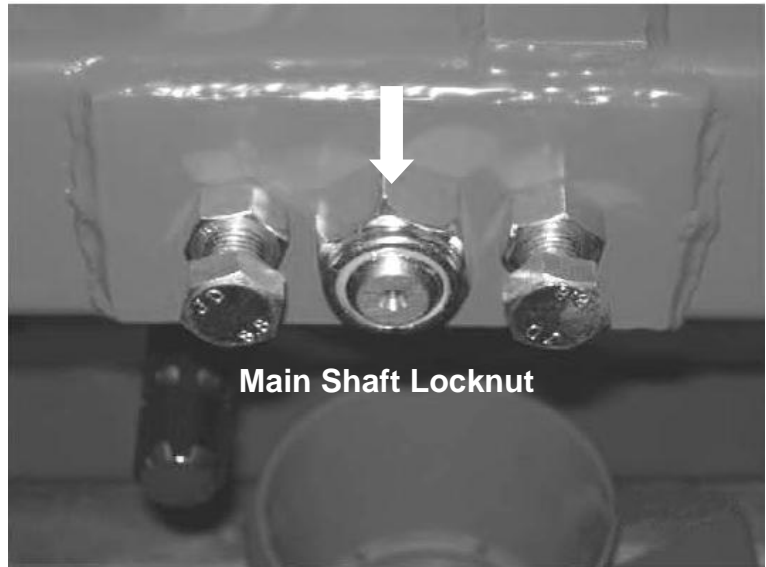
New machines are delivered from the factory with the clutch correctly adjusted; for subsequent adjustments the procedure is as follows:

1. Loosen locknuts 'A' & 'B'.
2. Loosen bolts 'C' & 'D'.
3. Hold lever 'E' against stop and tighten bolts 'C' & 'D' until slight resistance is felt.
4. Release lever 'E'.
5. Turn both bolts 'C' and 'D' a further 3/4 of a turn.
6. Tighten locknuts 'A' & 'B'.

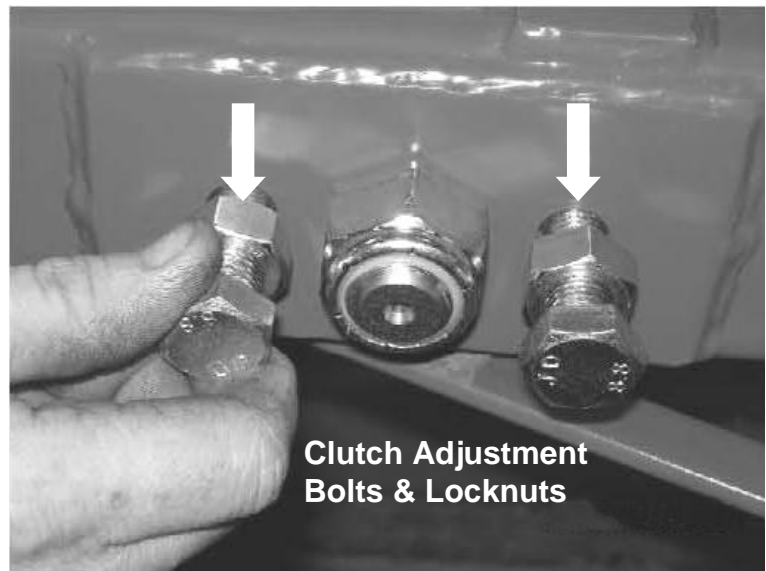


Clutch Adjustment after Replacement of Clutch Lining, Chain Wheel and Main Shaft

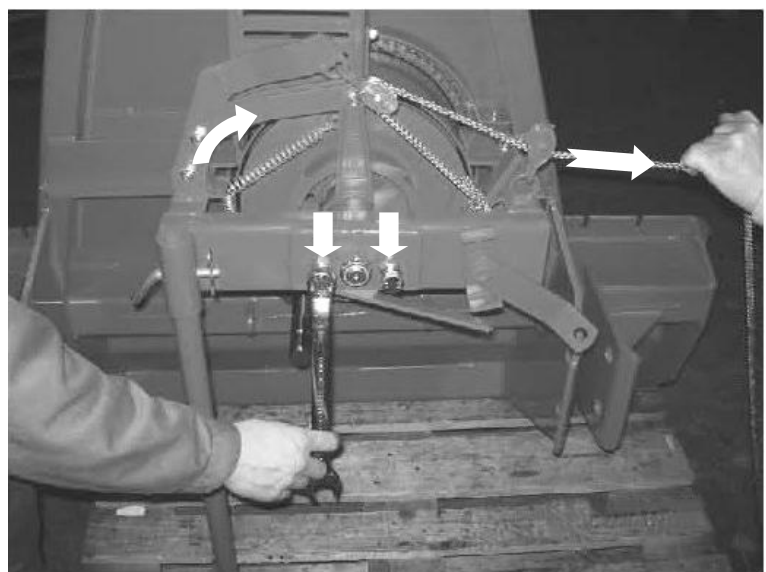
Ensure the main shaft locknut is tightened and does not move on the shaft when load is applied on the winch.



Release locknuts and loosen the two clutch adjustment bolts.

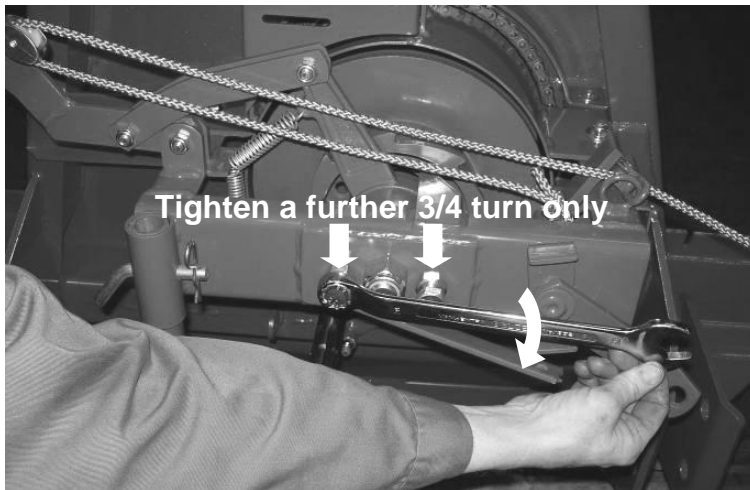


With the aid of an assistant; pull clutch operation cord to its furthest point so that the clutch arm is in contact with its stop, whilst in this position tighten both clutch adjustment bolts to points where resistance is felt, secure with locknuts before releasing the clutch arm cord.



Tighten the clutch adjustment bolts a further 3/4 turn – **no more**.

The clutch should now be correctly adjusted; *should the winch fails to pull sufficiently, tighten the clutch adjustment bolts by a further 1/10 turn only – **but no more**.*



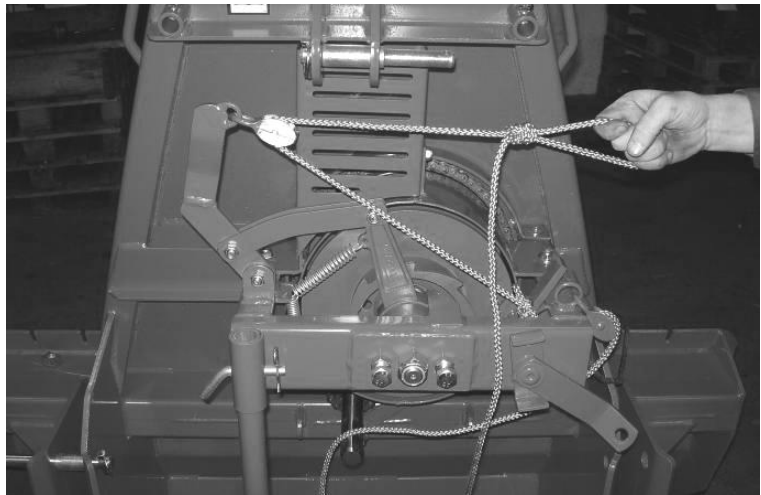
Secure both clutch adjustment bolts by tightening the locknuts.



Lubricate the nylon pulley rollers with WD-40 or similar type lubricant; *this will greatly reduce the effort required to pull the operation cord*. These pulley rollers should be lubricated on a regular basis.



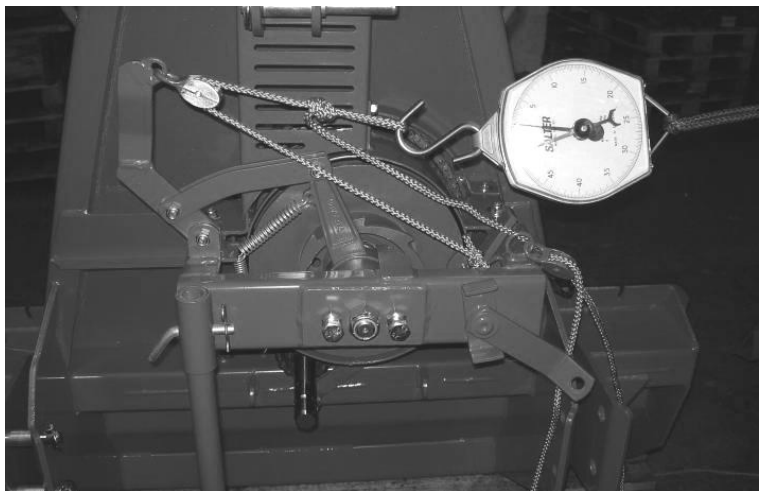
Activate the clutch a few times by pulling the operation cord to the 'stop' before performing a test with a weight gauge.



Correct clutch adjustment can be checked by measuring the weight required to pull the operation cord to its furthest position.

NOTE: When performing the test ensure the clutch arm is pulled fully to the 'stop'.

Attach a suitable weight gauge to the operation cord as illustrated in the photo opposite.



The required pull weight for the machines is as follows;

TW4050 models = 28 kg / 62 lbs

TW6550 models = 34 kg / 75 lbs

These figures are the pulling weight measured just before the clutch arm goes against the 'stop'.



OPERATION

Pre-Operation Checks

Ensure;

- The cable is properly fixed to the machine.
- The cable is free from excessive wear or damage.
- All safety guarding is in good condition and correctly fitted.
- The PTO is properly mounted and working at an acceptable angle.
- The clutch is correctly adjusted (*drum should only rotate when clutch is operated*).

Safety Clothing

When operating the machine it is advisable that the user wears suitable safety gear and protection in line with the nature of the work being undertaken; this will include gloves, safety boots and safety helmet with visor and/or safety glasses.

Winch Operation

For winching operations the unit should be parked on firm level ground with the machine facing the work. Do not winch at sideways angles in excess of 30° to the machine.

Lower machine to rest the butt end plate firmly on the ground and apply the tractor's parking brakes.

Operate the winch cable release and draw the cable out of the machine up to the work.

Secure a suitable chain around the timber and attach it to the hook or slide of the winch cable.

Position yourself in a location where you can safely operate the winch with a clear view of the work; operation should be from a control rope at a distance of at least 6 metres to the side of the machine. **Never operate the winch from the tractor seat.**

Operate the machine's clutch by slowly pulling on its operating cord.

Release the cord to stop winch operation when the timber has been dragged to the required position or when it reaches the rear of the machine.



WARNING! Never operate the winch for work with the machine raised clear of the ground; the machine must be in contact with ground to ensure the unit is stable.

Transport Operation

For transporting timber the front ends of them should be raised and rested on the chain beam of the machine and secured in place by wrapping the chain around the beam.

Raise the machine clear of the ground before driving the unit in a forwards direction to drag the timber.



WARNING! Never attempt to drag timber with the tractor and the machine using the winch cable – timber must be secured to the chain bar for transporting.

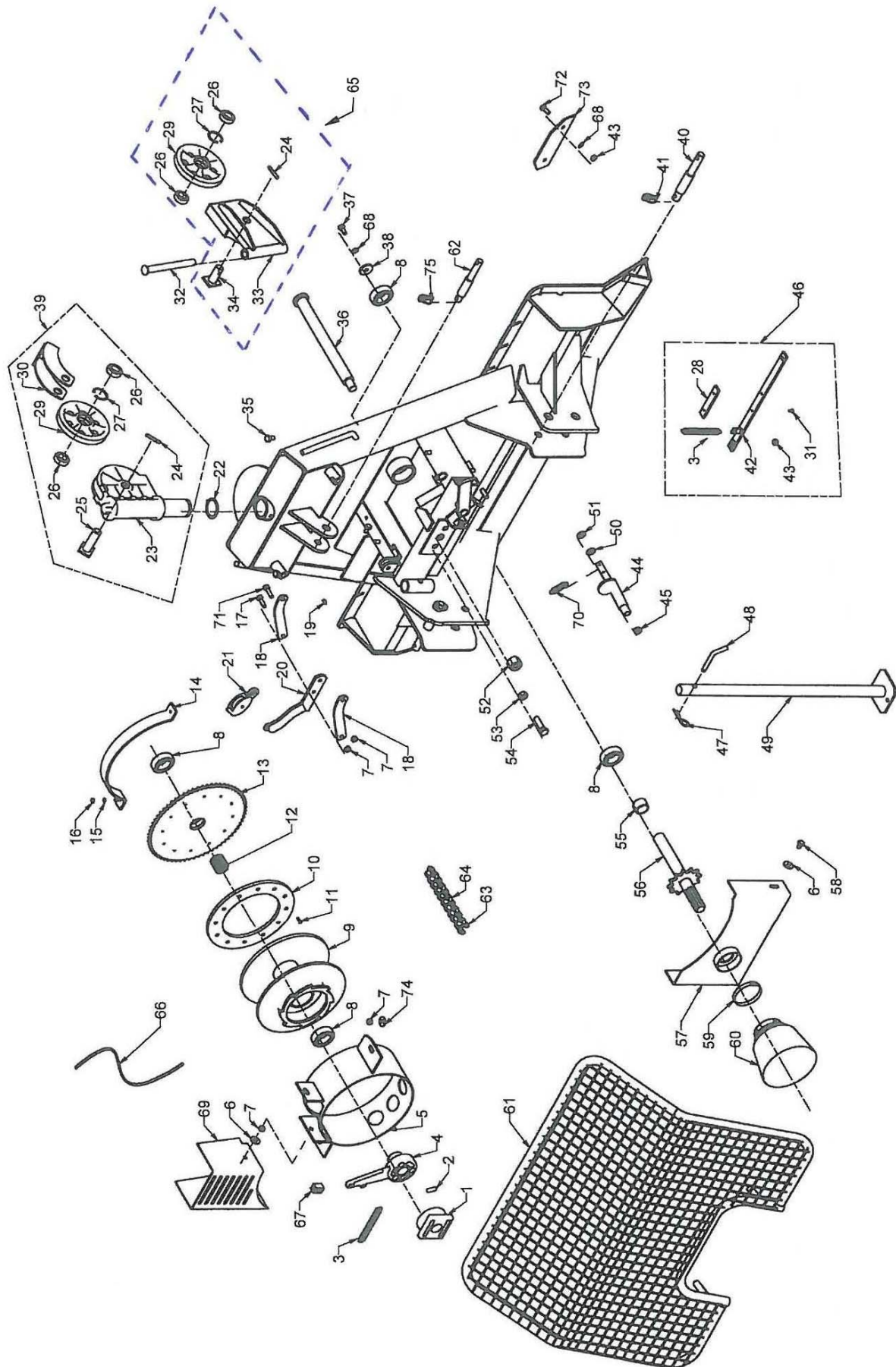
Dozer Operation

The lower section of the machine and chain plate doubles as a dozer blade for use in pushing or skidding timber when the unit is driven backwards. For this type of operation the machine should be raised just clear of the ground and the blade used to push or nudge the timber. Speed must be kept to a minimum so that travel can be quickly halted should a hazard or immovable object come into contact with the timber or machine.

TWOSE WINCHES

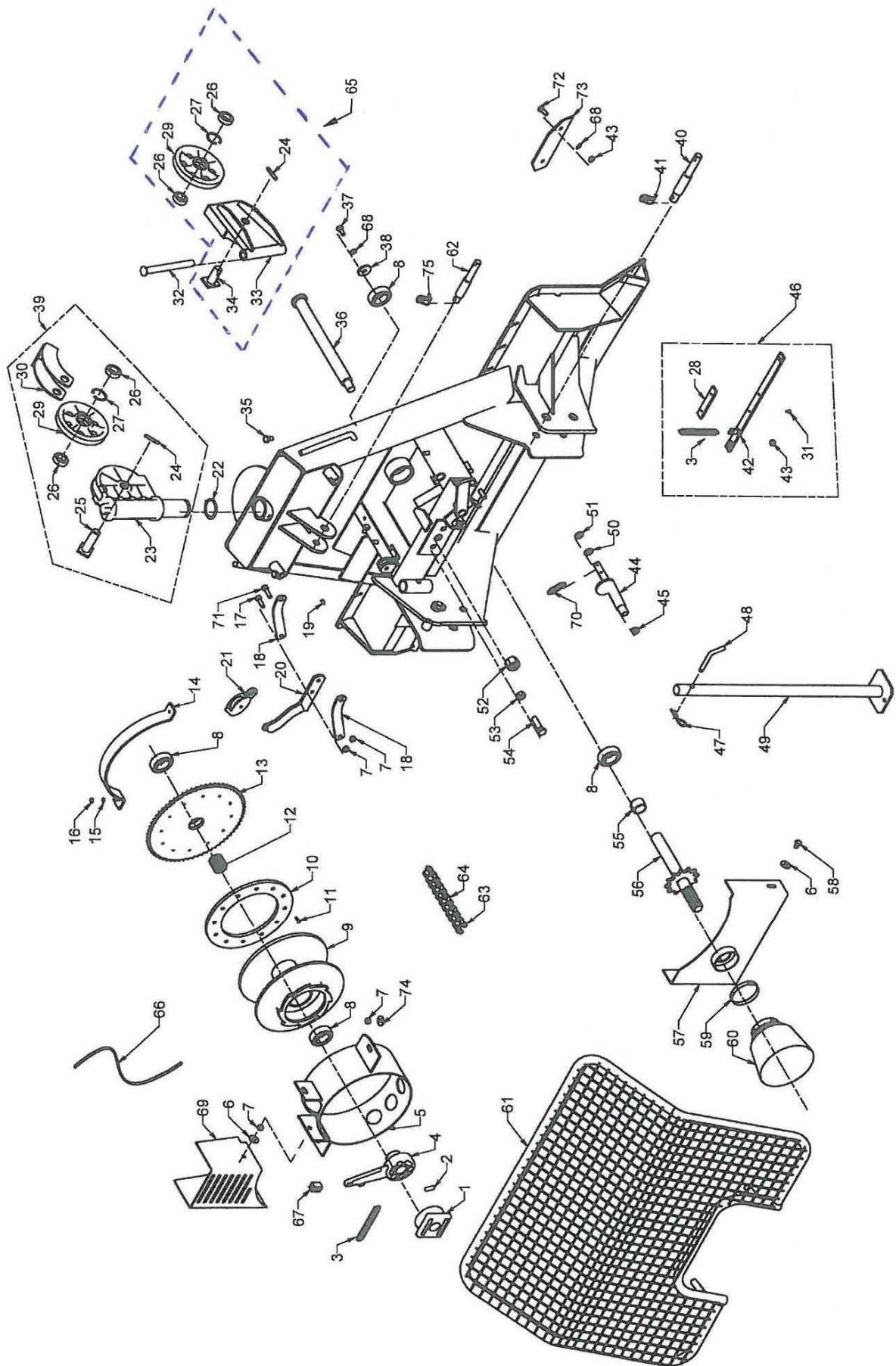
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Parts Manual
(Revised 30.11.15)



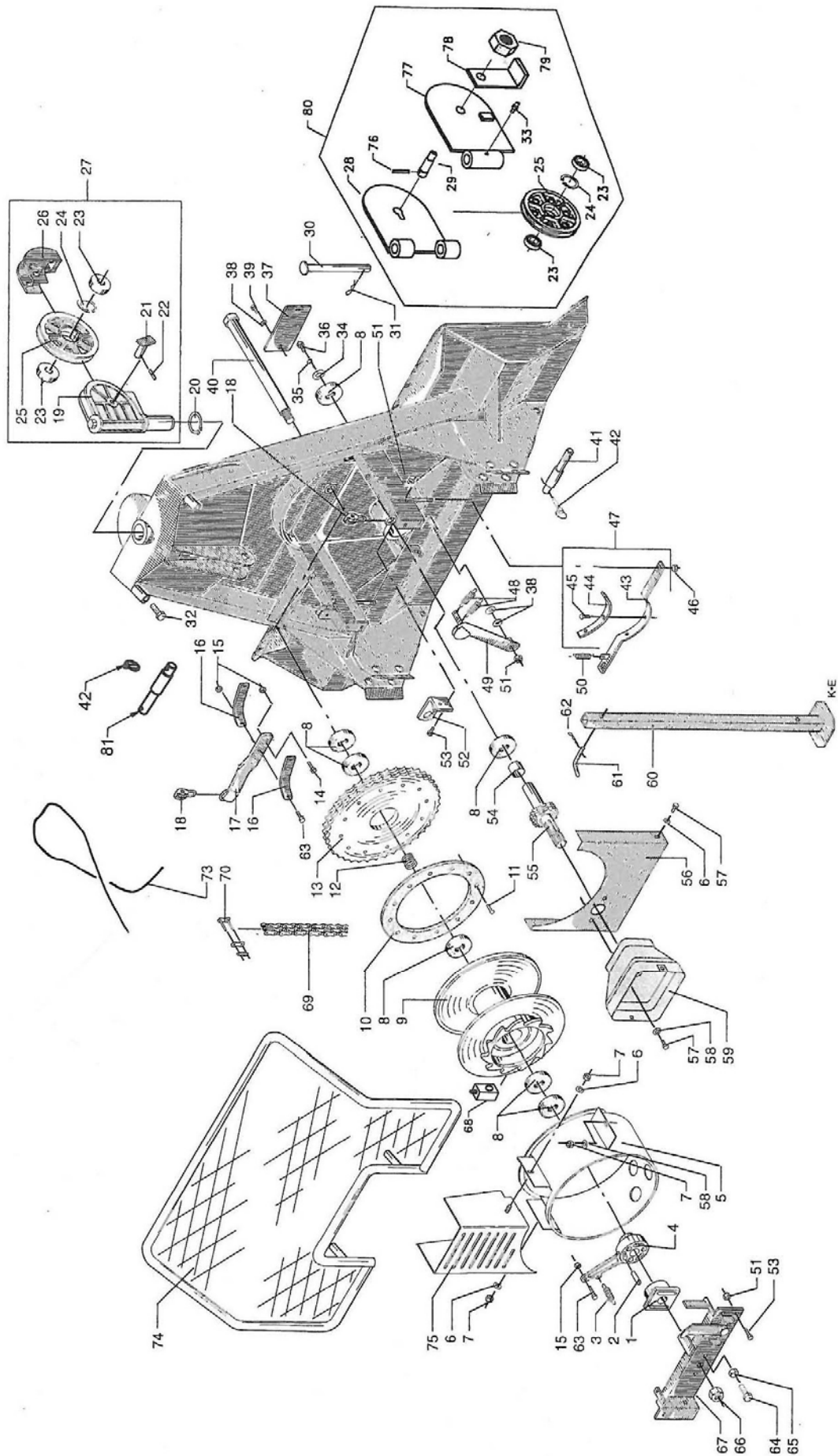
TW4050 ASSEMBLY

REF.	QTY.	PART No.	DESCRIPTION
			TW4050 WINCH ASSEMBLY
1	1	FD15502	CLUTCH
2	3	FD15503	PIN
3	2	FD15539	SPRING
4	1	FD15504	CLUTCH
5	1	FD15507	GUARD FRAME
6	6	FD740600030	DISK
7	7	FD740420010	LOCK NUT
8	7	FD1162072	BALL BEARING
9	1	FD15508	WIRE ROLL
10	1	FD15509	CLUTCH LINING
11	12	FD741170650	COPPER PIN
12	1	FD15557	SPRING
13	1	FD15511	CHAIN WHEEL
14	1	FD15512	COVER
15	2	FD740730005	DISK
16	2	FD740320006	NUT
17	3	FD740210320	SETSCREW
18	2	FD15532	BRACKET
19	1	FD881500240	GREASE NIPPLE
20	1	FD15533	BRACKET
21	2	FD15534	PULLEY ROLL
22	1	FD741141055	CIRCLIP
23	1	FD15591	TOP ROLL BRACKET
24	2	FD741190225	TENSION SPRING PIN
25	1	FD15592	BOLT
26	4	FD1160052	BALL BEARING
27	2	FD741142042	CIRCLIP
28	1	FD15506	FACING
29	2	FD15593	TOP ROLL
30	1	FD15594	WIRE CONTROL
31	2	FD741170600	COPPER PIN
32	1	FD15622	BOLT (S/N ► 158906)
32	1	FD15631	BOLT (S/N 158907 ►)
33	1	FD15595	BRACKET (S/N ► 158906)
33	1	FD15695	BRACKET (S/N 158907 ►)
34	1	FD15596	BOLT
35	2	FD740080205	SCREW
36	1	FD15515	DRIVESHAFT
37	1	FD740080142	SETSCREW
38	1	FD15518	DISK
39	1	FD15597	TOP ROLL CPL.
40	2	FD15536	HOOK
41	2	FD1210100	COTTER
42	1	FD15505	BRACKET



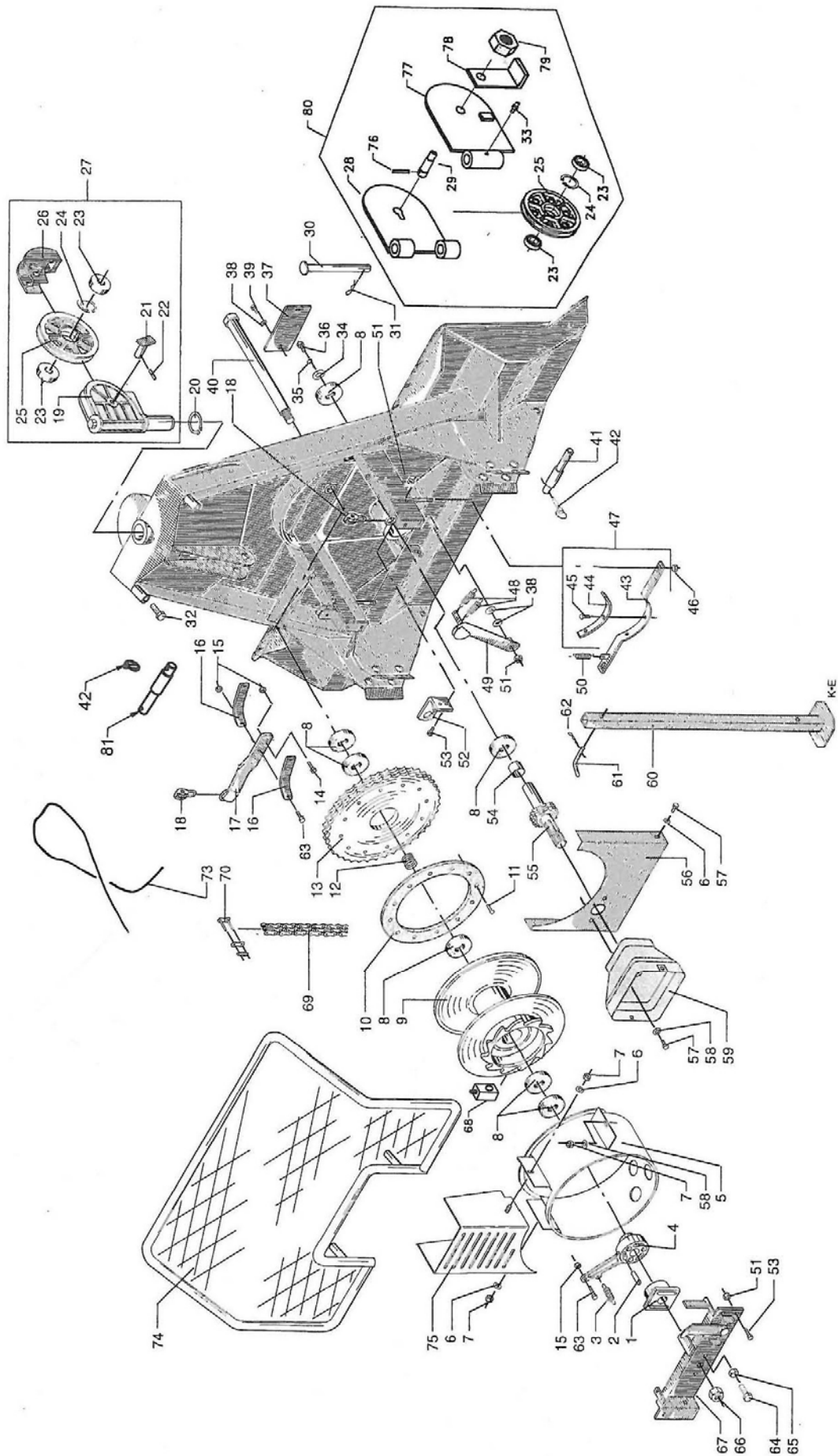
TW4050 ASSEMBLY

REF.	QTY.	PART No.	DESCRIPTION
			TW4050 WINCH ASSEMBLY
43	4	FD740320010	NUT
44	1	FD15619	TENSION FITTING
45	1	FD740420012	LOCK NUT
46	1	FD15584	BRAKE BRACKET CPL.
47	1	FD1220035	COTTER
48	1	FD15558	BOLT
49	1	FD15659	SUPPORT
50	2	FD740600038	DISK
51	1	FD740600076	DISK
52	1	FD740400045	LOCK NUT
53	2	FD740320016	NUT
54	2	FD740210560	SETSCREW
55	1	FD15553	DISTANCE SLEEVE
56	1	FD15617	DRIVE SHAFT
57	1	FD15616	COVER
58	2	FD740210302	SETSCREW
59	1	FD40257	CLIP BAND
60	1	FD1418210	PTO COVER
61	1	FD15875	GUARD
62	1	FD18006	TOP LINK PIN
63	1	FD1511125	ASSEMBLY JOINT
64	1	FD17045	CHAIN
65	1	FD15595K	ROLL CPL. (S/N ► 158906)
	1	FD15695K	ROLL CPL. (S/N 158907 ►)
66	1	FD15537	STRING
67	1	FD15587	LOCKING WEDGE
68	2	FD740750030	SPRING WASHER
69	1	FD15586	COVER
70	2	FD15541	SPRING
71	1	FD740210325	SETSCREW
72	2	FD740210310	SETSCREW
73	1	FD15598	COVER
74	2	FD740630020	DISK
75	1	FD1210080	COTTER



TW6550 ASSEMBLY

REF.	QTY.	PART No.	DESCRIPTION
			TW6550 WINCH ASSEMBLY
1	1	FD15502	CLUTCH
2	3	FD15503	PIN
3	1	FD42441	SPRING
4	1	FD15504	CLUTCH
5	1	FD15807	GUARD FRAME
6	4	FD740600030	DISK
7	7	FD740420010	LOCKNUT
8	7	FD1163072	BALL BEARING
9	1	FD15808	WIRE ROLL
10	1	FD15809	CLUTCH LINING
11	12	FD741170660	COPPER PIN
12	1	FD15857	SPRING
13	1	FD15811	CHAIN WHEEL
14	1	FD740211325	SET SCREW
15	7	FD740420010	LOCK NUT
16	2	FD15832	BRACKET
17	1	FD15862	BRACKET
18	2	FD15534	PULLEY ROLL
19	1	FD43827	TOP ROLL BRACKET
20	1	FD741141070	CIRCLIP
21	1	FD15866	BOLT
22	1	FD741190225	TENSION SPRING PIN
23	4	FD1163052	BALL BEARING
24	2	FD741142062	CIRCLIP
25	2	FD15829	TOP ROLL
26	1	FD15877	WIRE CONTROL
27	1	FD15867	TOP ROLL (COMPLETE)
28	1	FD43093	BRACKET
29	1	FD43095	BOLT
30	1	FD15822	BOLT
31	1	FD741180225	COTTER PIN
32	2	FD740210390	SETSCREW
33	2	FD881500240	GREASE NIPPLE
34	1	FD15518	WASHER
35	1	FD740750030	SPRING WASHER
36	1	FD740080142	SETSCREW
37	1	FD15860	BRACKET
38	4	FD740600032	WASHER
39	2	FD740210400	BOLT
40	1	FD15815	DRIVESHAFT
41	2	FD43075	HOOK
42	3	FD1210100	COTTER



TW6550 ASSEMBLY

REF.	QTY.	PART No.	DESCRIPTION
			TW6550 WINCH ASSEMBLY
43	1	FD15813	BRACKET
44	1	FD15814	FACING
45	3	FD741170600	COPPER PIN
46	4	FD740320010	NUT
47	1	FD15861	BRAKE BRACKET (COMPLETE)
48	2	FD42441	SPRING
49	1	FD15874	TIGHTENING-UP FITTING
50	1	FD15539	SPRING
51	7	FD740420012	LOCKNUT
52	1	FD15863	BRACKET
53	2	FD740210405	SETSCREW
54	1	FD15553	DISTANCE SLEEVE
55	1	FD15817	SHAFT W.CHAIN WHEEL
56	1	FD15864	COVER
57	2	FD740210302	SETSCREW
58	2	FD740630020	WASHER
59	1	FD1418110	PTO-COVER
60	1	FD15865	SUPPORT
61	1	FD15558	PIN
62	1	FD1220040	COTTER
63	2	FD740210320	SETSCREW
64	2	FD740210560	SETSCREW
65	2	FD740320016	NUT
66	1	FD740400045	LOCKNUT
67	1	FD15872	BRACKET
68	1	FD15587	LOCKING WEDGE
69	1	FD15810	CHAIN
70	1	FD1511210	ASSEMBLY JOINT
73	1	FD15537	STRING
74	1	FD15875	GUARD
75	1	FD15876	COVER
76	1	FD741190280	TENSION SPRING PIN
77	1	FD43096	BRACKET
78	1	FD43097	BRACKET
79	1	FD740420020	LOCK NUT
80	1	FD43094	BRACKET (COMPLETE)
81	1	FD80006	TOP LINK PIN (CAT 2 & 3)
82	1	FD11X50	CABLE c/w HOOK <i>(not illustrated)</i>

