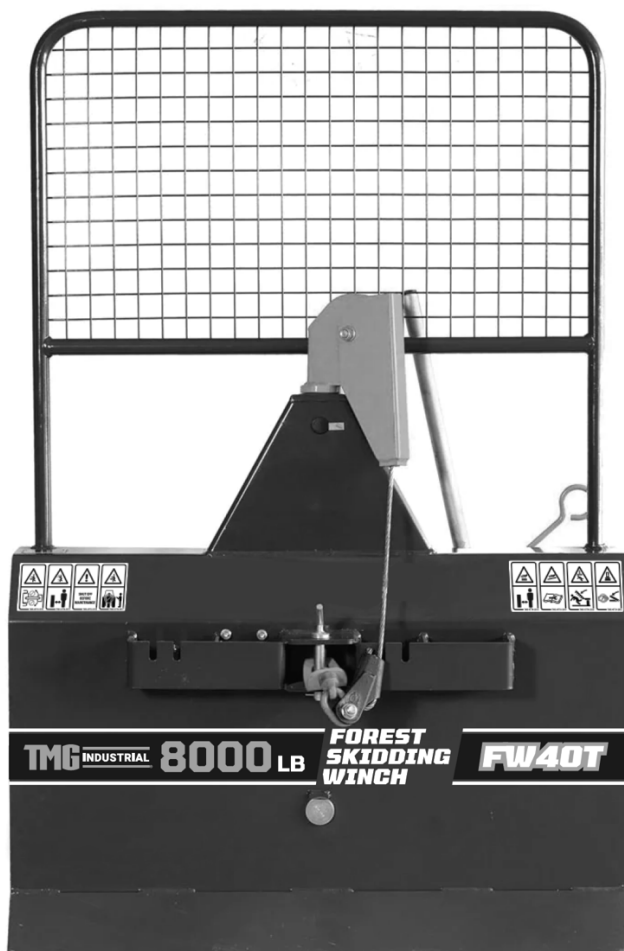


FOREST SKIDDING WINCH 3-PTO 8800-LB



⚠ WARNING



- 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.

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

Your Safety

YOU are responsible for the SAFE operation and maintenance of your TMG 3-PTO Forest skidding winch. YOU must ensure that you and anyone else who is going to use, maintain or work around the 3-PTO Forest skidding winch be familiar with the using and maintenance procedures and related SAFETY information contained in this manual. This manual will take you step-by-step through your working day and alerts you to all good safety practices that should be used while using the 3-PTO Forest skidding winch.

Remember, YOU are the key to safety. Good safety practices not only protect you but also the people around you. Make these practices a working part of your safety program. Be certain that EVERYONE using this equipment is familiar with the recommended using and maintenance procedures and follows all the safety precautions. Most accidents can be prevented. Do not risk injury or death by ignoring good safety practices.

When working with the winch you need to observe the safety instructions!

In order to prevent accidents carefully read and observe the following instructions:



General

1. Apart from the instructions in this user manual you should also observe all general safety and accident preventing regulations.
2. When working with the winch, it is necessary to comply with the rules of safety at work.
3. Only persons, who are older than 18, are allowed to work with the winch.
4. Safety and warning plates on the machine provide important instructions for safe use. Observe them for your safety.
5. The winch or its flawless operation should be checked before every use or at least once every working day. Defects should be removed by an expert. Before first use or after significant alterations and at least once a year the winch must be examined by an expert.
6. When using public transport routes observe traffic signs and regulations.
7. When using the winch wear personal protective equipment (helmet, gloves, appropriate footwear...).
8. Before starting and driving check the surrounding area (children). Maintain adequate visibility.
9. Riding on the winch during transport is not allowed.
10. Connect the winch according to the instructions.
11. For on road travel the machine must be in the following condition. If the winch covers the rear lights of the tractor and

they are not visible during transport on public roads, install additional lights on the winch.

12. Adjust the driving speed to the environmental conditions. When driving up or down or across a slope avoid sudden turning of the steering wheel.

13. Do not stand in the danger area.



14. If the tractor is not blocked against moving with a brake or wheel blocks, no person should be standing between the tractor and the winch.



15. Do not touch the winch until every part of the winch has stopped.

16. Check mounting bolts regularly.

17. Before use the winch must be visually inspected. At least once a year, the winch must be inspected by a professionally qualified person.

18. During any work on the winch you must turn the tractor off.

19. It is forbidden to remove the safety devices from the winch.



20. Use a tow rope of adequate strength and quality (see the factory plate).

21. A damaged wire rope must be replaced immediately.

22. It necessary to use a wire rope of an appropriate length. When you wind the rope up, a distance of 1,5 of rope diameter to outer diameter of the drum should stay on the drum. When you unreel the rope, a minimum of 3 rope wraps should stay on the drum.

23. The assistant is not allowed to connect load on the winch until he has informed the tractor driver about it.

24. It is especially dangerous to stand next to the tree that you are about to pull (Figure 1).

25. When using a relay pulley there is a triangular danger area, where you are not allowed to stay during the tow (Figure 2).



Figure 1

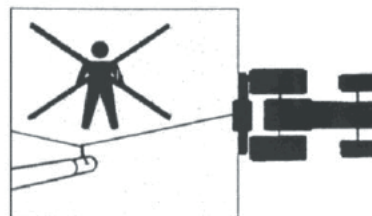


Figure 2

26. When towing observe the maximum allowed angle of 30. (Figure 3).

27. On uneven terrain or when not observing the maximum allowed towing angle there is a danger of the winch rolling over (Figure 4).

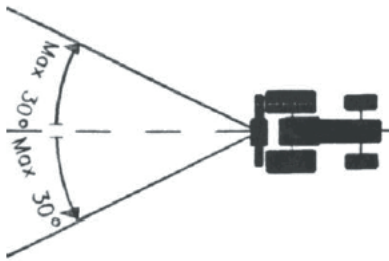


Figure 3

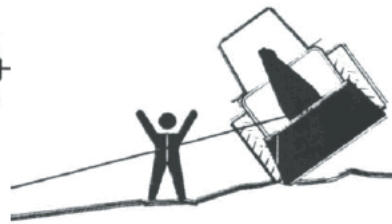


Figure 4

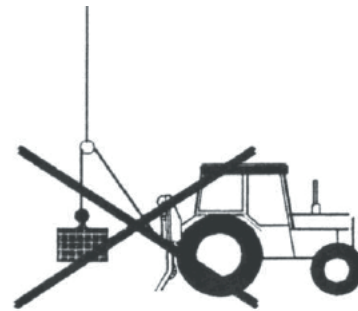


Figure 5

- 28. Do not use the winch for unintended purposes (lifting loads, etc.).(Figure 5)
- 29. Tractor driver and assistant must continuously communicate during their work.
- 30. The winch operator must continuously observe the load during the tow. If this is not possible due to the configuration of the terrain, the assistant should help.
- 31. The tractor to which the winch is connected to must have a minimum type of profile which still meets the traffic regulations. Otherwise, the wheels must be fitted with snow chains. Chains are also obligatory when working in snow and ice.
- 32. When disconnecting the winch, you first need to choose an appropriate hard and flat surface. Fix the winch by means of support legs. Lean the drive shaft on the prepared holder.

33. In the area of the three-point linkage there is a danger of injuries due to compression or crushing.



34. The winch can be operated only from a safe place from which the load, wire rope, rope hook or the winch itself do not pose a threat to the operator. A safe place can also be the tractor seat if the winch has a safety net of sufficient size. When operating the winch outside the tractor seat the operator must be provided with an appropriate protection, e.g. the tractor itself, secure location at a sufficient distance from the vehicle, e.g. behind a tree. Logs can be monitored from the side next to the connection and shorter timber can be monitored diagonally behind the load. (See Figure 6).



35. During the tow, it is forbidden to stand between the load and the winch as well as in the danger area between the winch, relay pulley and load. (See Figure 7).

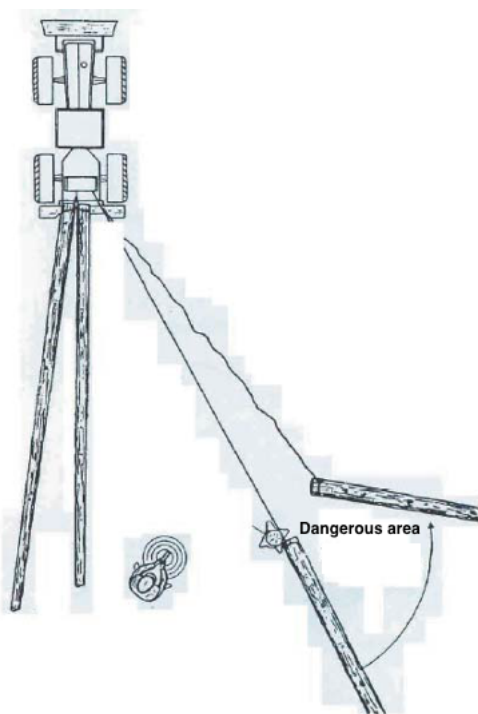


Figure 6

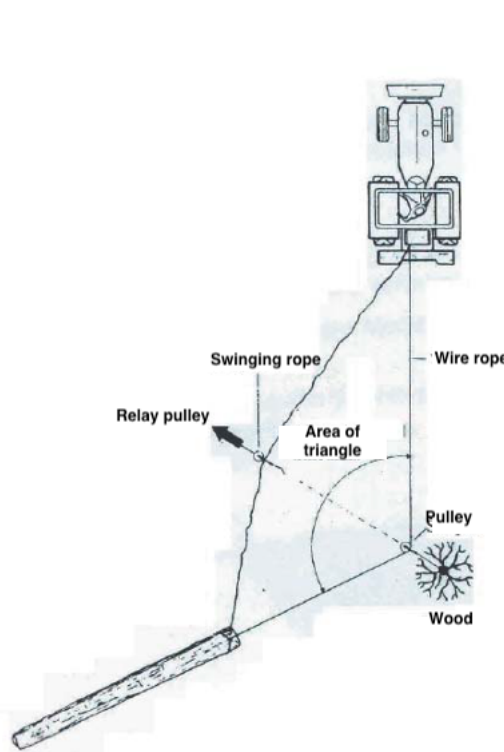


Figure 7

Cardan Shaft

1. Only use such cardan shafts which are recommended by the manufacturer.
2. The cardan shaft protection pipes, protective funnels and attachment protection must be mounted on the machine and be in perfect condition.
3. Observe the recommended pipe protection in transport and working position.
4. The cardan shaft can only be connected or disconnected, when the cardan attachment is turned off, the engine has stopped and the ignition key has been removed.
5. The cardan shaft must always be properly mounted and protected.
6. Secure the cardan shaft against rotating with a chain.
7. Before switching on the cardan shaft on the tractor make sure that the chosen speed and direction of rotation match the requirements from the chapter technical data.
8. Before switching on the cardan shaft make sure no person is standing in the danger area of the machine. This rule must also be observed during machine operation.
9. Never switch on the cardan shaft when the engine is turned off.
10. Put the disconnected cardan shaft on the intended holder.

OPERATION

Description

A winch is a machine intended for harvesting felled timber from the forest. The basic components are welded frame, drive part, drum with wire rope, clutch, brake, and directional pulley. Using the wire rope, the logs can be towed to the moldboard and attached with forestry chains to the grooves on the winch frame. Then the logs can be transported to a place which is accessible by other means of transport.

Required Equipment Of The Tractor

-PTO shaft with chosen gear ratio, max. 540 RPM.

-Three-point hitch of I category.

Maximum number of revolutions and direction of tractor PTO shaft rotation is 540 rpm/min.

PTO Shaft Adjustment

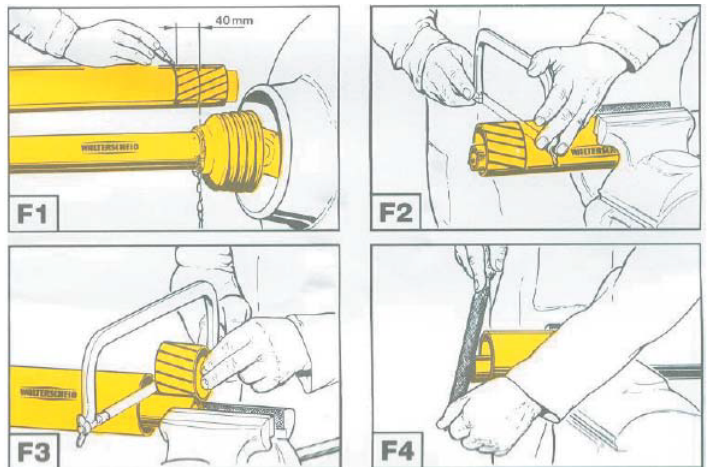
Length of PTO shaft needs to be adjusted for different tractors (figure F1-F4).

Ascertain the accurate length in the following manner:

1. Shut down the tractor.
2. Connect the machine to the tractor.
3. Extract the PTO shaft apart and connect the individual shaft halves to the tractor

and machine and compare them crosswise and mark them (figure F1).

4. Shorten external and internal plastic protection pipes (figure F2).
5. Shorten external and internal slide profiles with the same distance as plastic protection pipes (figure F3).
6. Crop the pipe end, remove fillings and grease the slide positions well (figure F4).



Tractor Mounting

When connecting the winch, do not stand in the danger zone!

The forestry winch can be attached to every tractor with a three-point hitch with a category I coupling. Appropriate

construction also enables easy connection to the tractor with automatic connection rods. Connect the prescribed PTO shaft and secure cardan protection with a hang chain.

Be careful that the cardan clicks into place on both connection points!

Once the winch is attached to the tractor, strengthen the stabilizers on the lower connection rods and level the winch with a hitch nut into position, so that the winch is tilted backwards for approximately 20 degrees.

Wire Rope Unwinding

Warning !

Steel rope must be completely unwound before first use and wind it back on the generator drum under load.

For instance, we can do this so that we attach the rope to a standing tree and pull the tractor with slight braking to the tree.

This procedure must be done also before trying to tow, if we towed downhill beforehand or if the rope was wound loosely during towing.

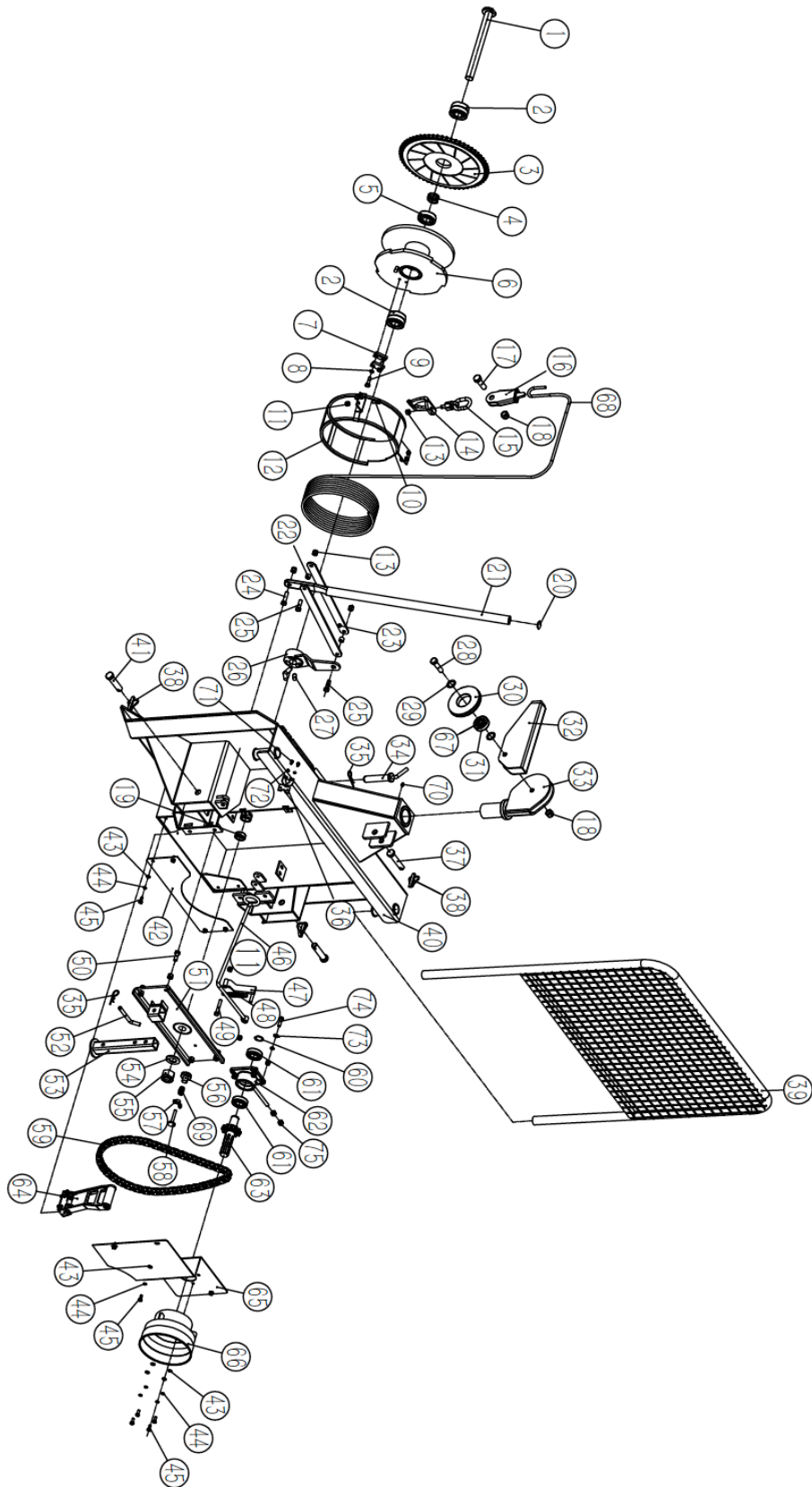
SPECIFICATION

Specifications & Capacities

- Cable Length : 200'
- Cable diameter: 3/8"
- Max pulling power: 42kN (4.2T)
- Average Winching Speed: 0.9m/s
- Dimensions: 1798*1200*425mm (71" * 47" *17")
- Wight: 220 KG (485lbs)
- Tractor CAT: CAT 1
- Recommended Tractor Power: 30-50 HP
- PTO input speed :540 RPM

PARTS LIST

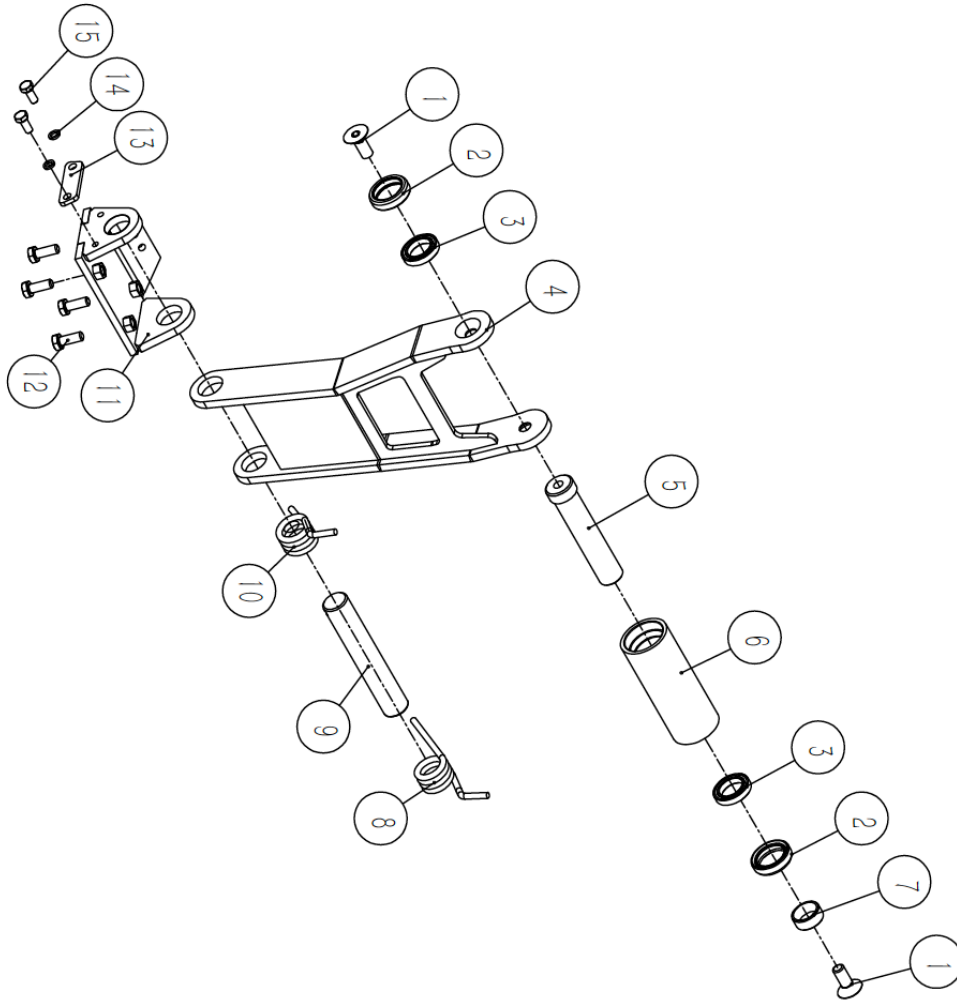
TMG-FW40T 3-PTO Forest Skidding Winch Assembly



Part No.	Ref.	Part Description	QTY
1	FW40.2	Housing	1
2	GB/T 292	Angular Contact Ball Bearings 7306 AC/DB	2
3	FW40.6	Friction Plate Assembly	1
4	FW40.12	Spring	1
5	GB/T 292-94	Angular Contact Ball Bearings 7306 AC	1
6	FW40.7A	Roller Welded Parts	1
7	FW40.34A	Wire Rope Pressure Plate	2
8	GB/T 93	Spring Washer 10	6
9	GB/T 5783	Bolt M10*35	4
10	GB/T 5783	Bolt M10*25	4
11	GB/T 889.1	Nut M10	10
12	FW40.41B	Ring Welded Parts	1
13	GB/T 889.1	Nut M12	9
14	FW40.26.2	Pull Hook	1
15	FW40.26.1	Universal Ring	1
16	FW40.26.3	Wedge Wire Connector	1
17	GB/T 5783	Bolt M18*60	1
18	GB/T 889.1	Nut M16	1
19	FW40.11	Spacer	1
20	W-08-Y22	Round Rubber Cover	1
21	FW40.17	Handle	1
22	FW40.16	Spacer	2
23	FW40.15A	Link	2
24	GB/T 5783	Bolt M12*40	2
25	GB/T 5783	Bolt M12*50	1
26	FW40.8	Rocker Arm Welded Parts	1
27	FW40.40	Top Pillar	3
28	GB/T 5783	Bolt M16*65	1
29	FW40.42	Gasket	2
30	FW40.24	Guide Wheel	1
31	GB/T 276	Deep Groove Ball Bearings 6305-2Z	1
32	FW40.23	Wire Rope Guide Plate Welded Parts	1
33	FW40.22A	Guide Rope Frame Welded Parts	1
34	FW40.33	Trailer Pin Welded Parts	1
35	EFGC125.110	R Pin 3.2	2
36	FW40.43	Tie Rod Fixing Plate	1
37	NCM175.17	Upper Suspension Pin	1
38	FEL300.111	Lock Pin 12	3

Part No.	Ref.	Part Description	QTY
39	FW40.10TMG	Baffle Welded Parts	1
40	FW40.1B	Machine Base Welded Parts	1
41	NCM175.18	Lower Suspension Pin	2
42	FW40.4B	Back Cover	1
43	GB/T 97.1	Washer 8	11
44	GB/T 93	Spring Washer 8	11
45	GB/T 5783	Bolt M8*20	11
46	FW40.19A	Tie Rod Welded Parts	1
47	FW40.18A	Stop Plate Welded Parts	1
48	FW40.20A	Spring	1
49	GB/T 5783	Bolt M10*65	1
50	GB/T 5783	Bolt M12*35	4
51	FW40.9A	Front End Cover Welded Parts	1
52	FW40.21	Bent Pin	1
53	FW40.13	Support Foot Welding Parts	1
54	GB/T 97.1	Washer 30	1
55	GB/T 889.1	Nut M30	1
56	FW40.30	Brake Pad Assembly	1
57	GB/T 62.1	Wing Nut M10	1
58	FW40.32	Adjustment Handwheel	1
59	GB/T1243	Chain 12AH-1-74	1
60	GB 894.1	Circlip For Shaft A30	1
61	GB/T 276	Bearing 6206-2Z	2
62	FW40.3.1	Bearing Cover	1
63	FW40.3.2	Input Shaft Press Fitting	1
64	FW40.5	Pinch Roller Component	1
65	FW40.14A	Cladding Welded Parts	1
66	FM150.120	Gearbox Cover	1
67	FW40.25	Spacer	1
68	YB/T5359	Compacted Wire Rope	1
69	FW40.31	Friction Plate Compression Spring	1
70	JB/T 7940.1	Greaser M8	1
71	GB/T 5783	Bolt M6*16	2
72	GB/T 93	Spring Washer 6	2
73	GB/T 95	Washer 10	4
74	GB/T 5783	Bolt M10*35	2
75	GB/T 6170	Nut M12	2

TMG-FW40T Pinch roller component



Part No.	Ref.	Part Description	QTY
A1	GB/T 70.3	Bolt M8*20	2
A2	GB/T 13871	Oil Seal FB 20*28*7	2
A3	GB/T 276	Bearing 61803-2Z	2
A4	FW40.5.1	Pinch Roller Weldment	1
A5	FW40.5.4	Pinch Roller Shaft	1
A6	FW40.5.3	Pinch Roller	1
A7	FW40.5.8	Spacer	1
A8	FW40.5.9	Torsional Spring 2	1
A9	FW40.5.5	Support Shaft	1
A10	FW40.5.6	Torsional Spring 1	1
A11	FW40.5.2	Support Weldment	1
A12	GB/T 5783	Bolt M6*16	4
A13	FW40.5.7	Platen	1
A14	GB/T 93	Washer 5	2
A15	GB/T 5783	Bolt M5*12	2