

DUCAR

DUEDR46-HD **Lawn Dethatcher/Scarifier** **Operator's manual**



Illustrations



Figure 1

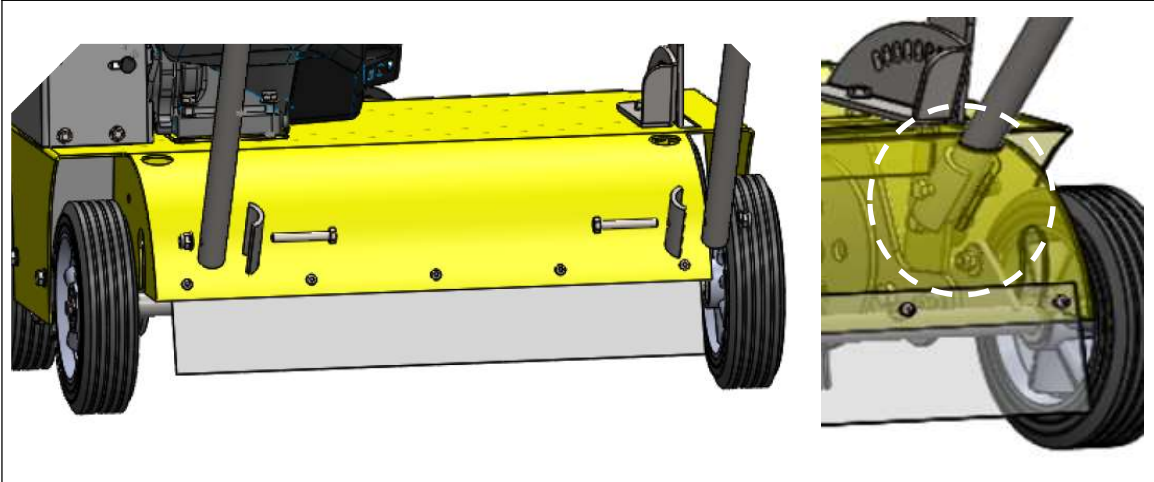


Figure 2

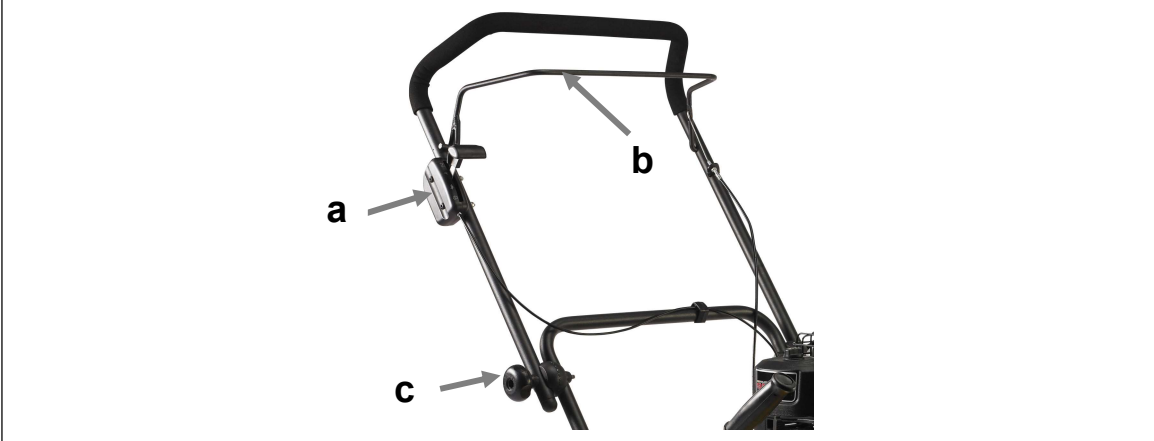


Figure 3

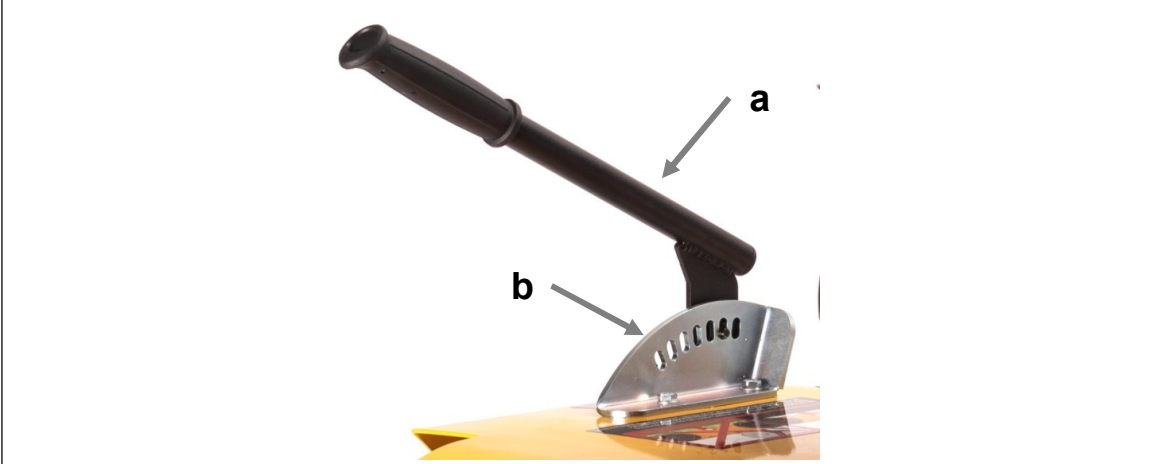


Figure 4

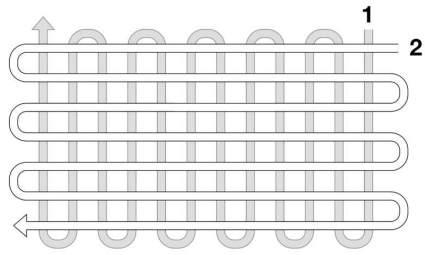


Figure 5



Figure 6

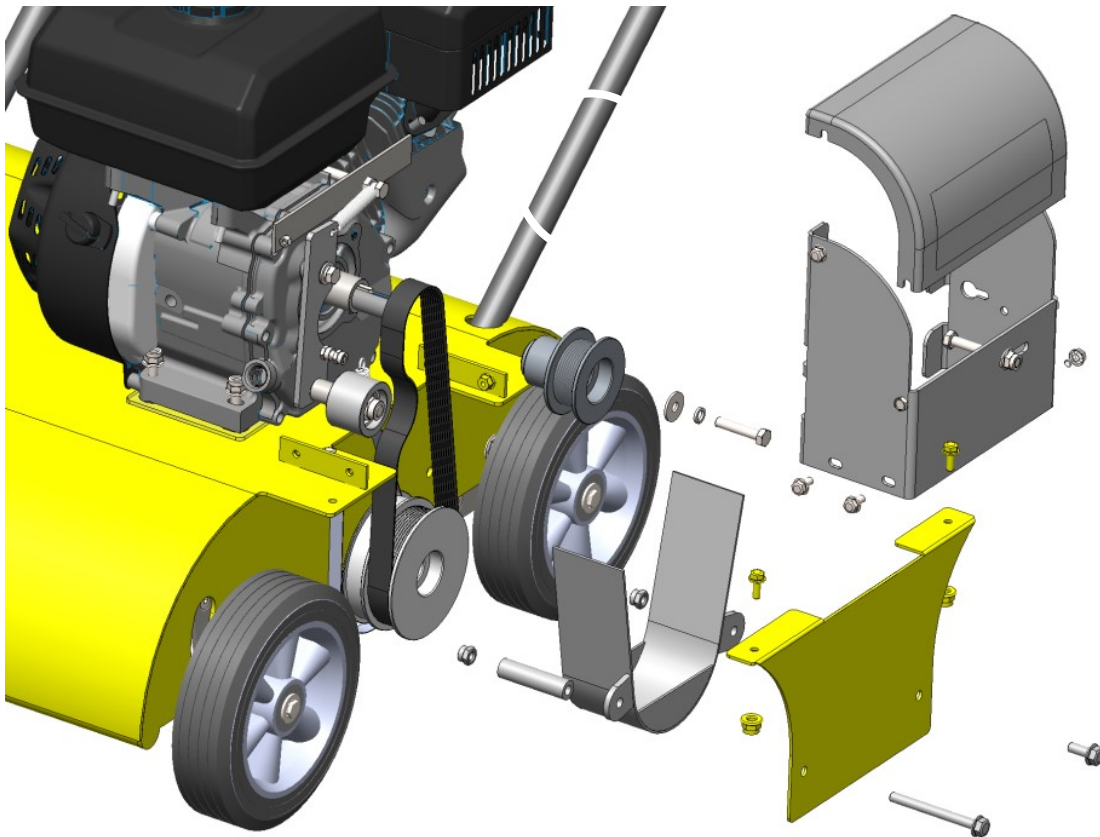


Figure 7

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Spare parts

For purchase of spare parts, please contact your authorized dealer.

Safety precautions

The safety precautions must be complied with in full when using the lawn scarifier. Familiarize yourself with these user instructions before starting the machine. Ensure that you can stop the machine immediately and switch off the engine in the event of an accident. All safety and maintenance instructions for the lawn scarifier are intended to ensure your safety.



The lawn scarifier must not be used in any other way than described in these user instructions.



Only use authorized accessories and spare parts. Fitting non-approved parts can increase the risk of problems and is therefore not permitted. The manufacturer cannot be held liable for any injury or damage caused by the use of unauthorized parts.



The guarantee is invalid if unauthorized parts or accessories are used.



Before using the machine for the first time, the user should be instructed in its use by the dealer or another qualified person.



The machine operator is responsible for the safety of other people in the vicinity.

Never use the machine when there are other people, particularly children, or animals nearby.



Minors must not be permitted to operate the machine.



The machine should only be lent to persons who are familiar with its operation. The operating manual should always accompany the machine when it is lent to others.



The lawn scarifier should only be operated by persons who are not tired and who are healthy and fit. If the work is tiring, regular breaks should be taken. Do not use the machine under the influence of alcohol.



The control units fitted at the factory (e.g. throttle cable from handle) must not be removed or uncovered.



Always check before starting that nuts and bolts are correctly tightened.



Control oil levels before starting the motor.



"Caution! Rotating blades"
Using the machine on steep slopes is dangerous!
Only use the machine in areas where it can be operated safely!



Box Contents

1. Machine (Figure 1)
2. Operating manual and motor instructions
Accessory included in the box: Scarifier - DUADR46-SCARIF

The dethatcher is almost ready for use. Only the handlebar needs to be fitted.

Fit the bottom handlebar using the accompanying bolts. Figure 6.

Bottom handlebar must be fitted with tension plates inside. Figure 2

Fit the top handlebar, unfold the handlebar and secure it in the required position with the grips.

See figure 3, c.

Use



Before use, follow the instructions for readying the motor in the motor instruction manual.



Before using the machine, remove all foreign objects from the vicinity. Stones, glass, branches and similar items can damage the machine. Also check that all bolts are tightened.



Control oil levels before starting the motor.

Start:

Set the gas handle to choker / full gas, figure 3,a.

Follow motor start instructions.

Stop:

Set the gas handle to minimum gas, figure 3,a.

Follow motor stop instructions.

The clutch grip on the handle is used to activate the rotating blades under the machine. It is important that the clutch allows for connection under operation, i.e. the clutch trigger is to be held tight up against the handle.

Figure 3, b.

The rotating blades disengage automatically when the trigger is released.

Working depth can be adjusted using the position settings on the right hand side of the machine, (figure 4, b).

The machine can be lifted to its transport position by using the handle on the right hand side of the machine (figure 4, a).

Under Operation

The lawn scarifier is used to loosen moss, etc. from the lawn. The machine's blades rotate in the direction of travel, thereby helping to propel the machine forward.

Note! Only use it early spring and late autumn, where the soil is soft and moist.

Start the motor and lower the machine to the "work" position using the handle on the right hand side of the machine. Activate the clutch trigger and engage the motor fully. Move the lawn scarifier forwards and backwards across the lawn. After the first aeration remove any loose moss from the lawn. In the event that there is still moss in the lawn, aerate again at an angle of 90 degrees to the previous aeration. (figure 5)



Warning: Do not use the lawn scarifier in hard dry soil. This can damage the belt!

Cleaning and Maintenance

After use remove any moss attached to the shield. Stop the motor, remove the spark plug cap and tip the machine back. Clean under the shield with a brush.

If cleaning the machine with a hose, use a low pressure so as to avoid damaging the machine's stickers. Also avoid spraying the blade bearing directly. After washing the machine it is a good idea to start the machine and let the rotor blades run without resistance for a short period of time.



Never use a high pressure cleaner to clean the lawn scarifier.

Spray exposed areas with a corrosion protective spray.

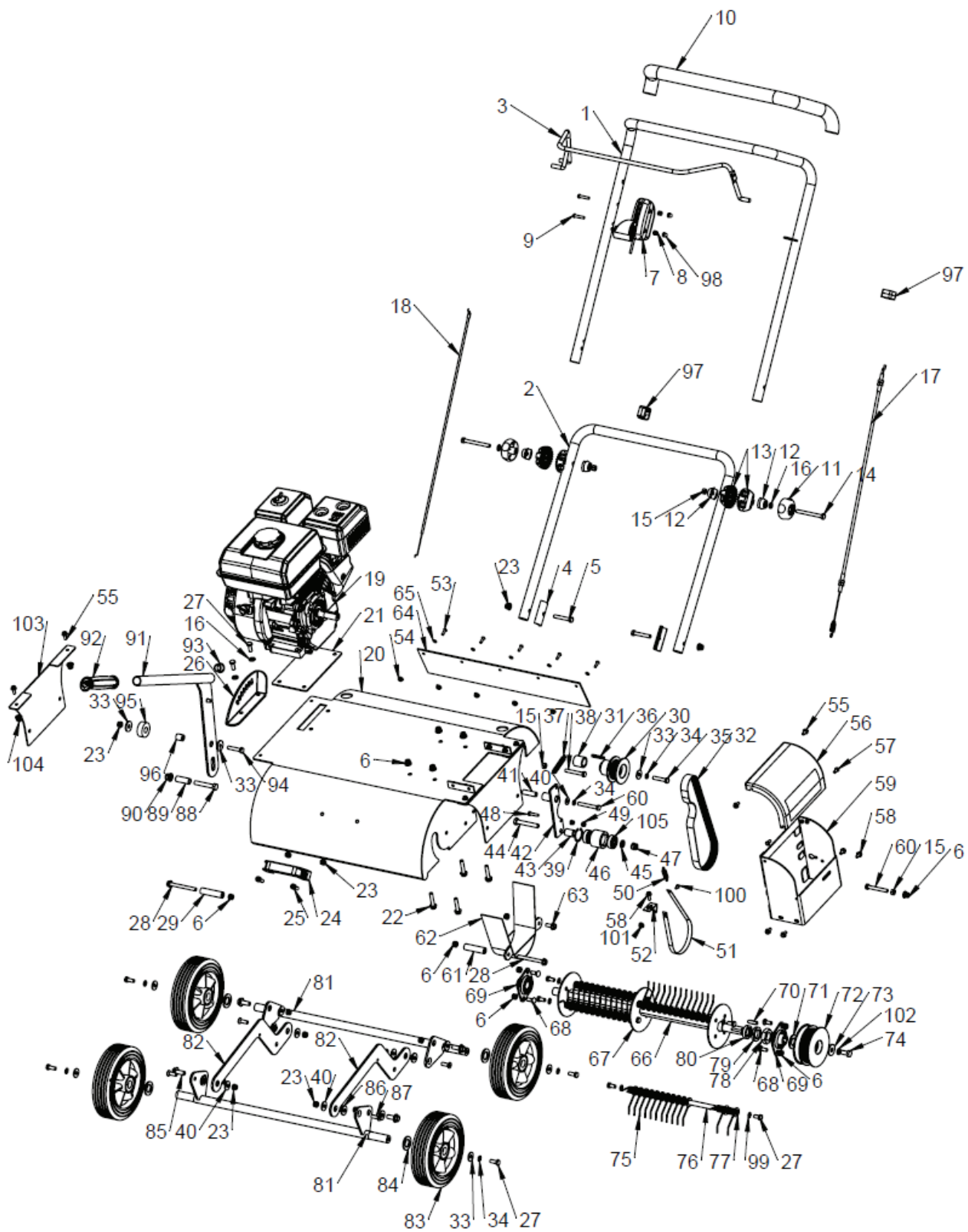
Never tilt the machine more than 20 degrees as this can result in oil leaking into the cylinder.

Follow the motor manual instructions when performing motor maintenance.

For replacement of belt, see figure 7.

Technical specifications

Model	DUEDR46-HD
Rated power (kW)	4.3 kW / 3600RPM
Working width (mm)	460
Total Length (mm)	1100
Total width (mm)	700
Weight w/o fuel (kg)	62.5
Rotor diameter (mm)	210
Rotor speed (rev./min.)	2000
Sound power level L_{WA}	98 dB
Noise Guaranteed L_{WA}	101 dB
Handle vibration (m/s^2)	4.618 m/s^2 (max), $K=2.3m/s^2$



No.	Part number	Description	Qty
1	DUPDR46-HD001	Upper handle bar	1
2	DUPDR46-HD002	Lower handle bar	1
3	DUPDR46-HD003	Clutch handle	1
4	DUPDR46-HD004	Plate for handle (#2)	2
5	DUPDR46-HD005	Bolt hex GB/T 5782 M8x50	2
6	DUPDR46-HD006	Nut hex flange GB/T 6183.1 M8	12
7	DUPDR46-HD007	Throttle box assembly	1
8	DUPDR46-HD008	Nut hex GB/T 889.1 M6	2
9	DUPDR46-HD009	Bolt hex GB/T 70.2 M6x55 black	2
10	DUPDR46-HD010	Tubing, foam 25x5 L700	1
11	DUPDR46-HD011	Wing nut	2
12	DUPDR46-HD012	Tube pad	4
13	DUPDR46-HD013	Block	4
14	DUPDR46-HD014	Bolt hex GB/T 5782 M8x100	2
15	DUPDR46-HD015	Nut hex GB/T 6170 M8	4
16	DUPDR46-HD016	Washer, flat GB/T 97.1 8	7
17	DUPDR46-HD017	Clutch cable	1
18	DUPDR46-HD018	Throttle cable	1
19	DUPDR46-HD019	Ducar engine 212cc	1
20	DUPDR46-HD020	Blade cover	1
21	DUPDR46-HD021	Rubber pad, engine	1
22	DUPDR46-HD022	Bolt hex GB/T 5789 M8x40	4
23	DUPDR46-HD023	Nut hex GB/T 889.1 M8	13
24	DUPDR46-HD024	Plastic handle	1
25	DUPDR46-HD025	Bolt hex GB/T 70.1 M8x25	2
26	DUPDR46-HD026	Ajusting level for plate	1
27	DUPDR46-HD027	Bolt hex GB/T 5783 M8x20	14
28	DUPDR46-HD028	Bolt hex flange GB/T 5789 M8x90	2
29	DUPDR46-HD029	Bushing	1
30	DUPDR46-HD030	Driving pulley	1
31	DUPDR46-HD031	Bushing	1
32	DUPDR46-HD032	Belt 9PJ710	1
33	DUPDR46-HD033	Big Washer FB/T 5287 8x30x2.5	8
34	DUPDR46-HD034	Washer GB/T 93 8	6
35	DUPDR46-HD035	Screw hex 5/16 24UNF 2Bx38	1
36	DUPDR46-HD036	Engine flat key FB/T 1096 4.78x42	1
37	DUPDR46-HD037	Tensioner spring 1,5 (clutch)	1
38	DUPDR46-HD038	Bolt hex GB/T 5783 M8x55	1
39	DUPDR46-HD039	Circlip GB/T 893.1 35	1
40	DUPDR46-HD040	Washer, large GB/T 96.1 8	9
41	DUPDR46-HD041	Tensioner bracket bushing	1

No.	Part number	Description	Qty
42	DUPDR46-HD042	Tensioning bracket	1
43	DUPDR46-HD043	Bushing for tensioner pulley	1
44	DUPDR46-HD044	Bolt hex GB/T 5782 M10x65	1
45	DUPDR46-HD045	Washer, flat GB/T 97.1 10	2
46	DUPDR46-HD046	Tensioner pulley	1
47	DUPDR46-HD047	Nut hex FB/T 889.1 M10	1
48	DUPDR46-HD048	Bolt hex GB/T 5783 M6x25	1
49	DUPDR46-HD049	Nut hex FB/T 889.1 M6	2
50	DUPDR46-HD050	Brake tension spring	1
51	DUPDR46-HD051	Brake band	1
52	DUPDR46-HD052	Brake band bracket	1
53	DUPDR46-HD053	Screw GB/T 818 M5x16	5
54	DUPDR46-HD054	Nut hex flange GB/T 6177.1 M5	5
55	DUPDR46-HD055	Bolt hex flange GB/T 5789 M6x16	6
56	DUPDR46-HD056	Belt cover	1
57	DUPDR46-HD057	Tapping lock screw hex FB/T 6563	2
58	DUPDR46-HD058	Tapping lock screw hex FB/T 6563	5
59	DUPDR46-HD059	Belt box welding	1
60	DUPDR46-HD060	Bolt hex GB/T 5782 M8x60	2
61	DUPDR46-HD061	Belt cover bush	1
62	DUPDR46-HD062	Belt lower cover	1
63	DUPDR46-HD063	Bolt hex flange GB/T 5789 M8x20	1
64	DUPDR46-HD064	PVC plate	1
65	DUPDR46-HD065	Washer large GB/T 96.1 5	5
66	DUPDR46-HD066	Drive shaft for blade (galvanized)	1
67	DUPDR46-HD067	Coupling disk	3
68	DUPDR46-HD068	Bolt GB/T 12 M8x20	4
69	DUPDR46-HD069	Bearing GB/T 7810 UBPFL 204	2
70	DUPDR46-HD070	Key flat GB/T 1096 C6x30	1
71	DUPDR46-HD071	Washer FB/T 848 20x34x1.5	1
72	DUPDR46-HD072	Driven pulley	1
73	DUPDR46-HD073	Washer large GB/T 96.1 10	1
74	DUPDR46-HD074	Bolt hex GB/T 5783 M10x25	1
75	DUPDR46-HD075	Spring, torsion	52
76	DUPDR46-HD076	Spring support bar	4
77	DUPDR46-HD077	Washer flat FB/T 97.1 12	52
78	DUPDR46-HD078	Nut hex GB/T 6172.1 M14	1
79	DUPDR46-HD079	Washer GB/T 93 12	1
80	DUPDR46-HD080	End cap	1
81	DUPDR46-HD081	Wheel support shaft	2
82	DUPDR46-HD082	Connect plate	2

No.	Part number	Description	Qty
83	DUPDR46-HD083	Wheel 8x2	4
84	DUPDR46-HD084	Washer falt GB/T 97.1 20	5
85	DUPDR46-HD085	Bolt hex flange GB/T 5789 M8x25	4
86	DUPDR46-HD086	Step bushing	8
87	DUPDR46-HD087	Screw hex GB/T 70.3 M8x30	4
88	DUPDR46-HD088	Bolt hex GB/T 5782 M10x60	1
89	DUPDR46-HD089	Adjusting rod ushing	1
90	DUPDR46-HD090	Nut hex flange GB/T 6183.1 M10	1
91	DUPDR46-HD091	Adjust handle lever	1
92	DUPDR46-HD092	Grip, handle	1
93	DUPDR46-HD093	Tube cap	1
94	DUPDR46-HD094	Bolt hex GB/T 5782 M8x40	1
95	DUPDR46-HD095	Rubber bushing	1
96	DUPDR46-HD096	Bushing	1
97	DUPDR46-HD097	Clamp	2
98	DUPDR46-HD098	Nut cap M6 black	2
99	DUPDR46-HD099	Washer GB/T 862.2 8	8
100	DUPDR46-HD100	Screw GB/T 818 M5x10	1
101	DUPDR46-HD101	Nut hex flange GB/T 6183.1 M5	1
102	DUPDR46-HD102	Washer GB/T 93 10	1
103	DUPDR46-HD103	Side cover	2
104	DUPDR46-HD104	Nut hex flange GB/T 6183.1 M6	4
105	DUPDR46-HD105	Bearing GB/T 276 6300 2RS	2