



OWNER'S MANUAL FOR THE



GROUND DRIVEN SPREADER C-DIT400

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SAFETY PRECAUTIONS

CDIT400

AN IMPORTANT MESSAGE FOR OWNERS & OPERATORS OF C-Dax ATTACHMENTS/ACCESSORIES

Be warned of the dangers of loading your ATV or other vehicle in excess of its carrying capacity. It is important to understand that any loads or attachments whether fastened to or placed on a vehicle or ATV will alter the stability or handling characteristics of that vehicle or ATV.

Spray tanks or other equipment must be filled only to a level where the gross weight is within the load limit of the ATV or other vehicle.

Safety is a primary concern in the design, manufacture, sale, and use of spray tanks and other equipment.

As manufacturers of spray tanks and other equipment we want to confirm to you, our customers, our concern for safety. We take this opportunity to remind you about the simple, basic and common sense rules of safety when using spray tanks and other equipment. Failure to follow these rules can result in severe injury or death to operators and bystanders.

It is essential that everyone involved in the assembly, operation, transport, maintenance and storage of this equipment be aware, concerned, prudent and properly trained in safety.

This also applies to equipment that is loaned or rented to someone who has not read the owner's manual and is not familiar with the operation of application equipment.

- NEVER EXCEED THE LOAD LIMIT CAPACITY OF THE ATV OR OTHER VEHICLE.
- ALL ATV AND TRAILED EQUIPMENT TYRES SHOULD BE INFLATED TO MANUFACTURERS RECOMMENDED OPERATING PRESSURES.
- PLEASE NOTE THAT FILLING THE SPRAY TANK OR OTHER EQUIPMENT COMPLETELY AND OR THE ATTACHMENT OF ADDITIONAL EQUIPMENT TO THE ATV MAY EXCEED THE ATV'S MAXIMUM LOAD CAPACITY AND IT IS NOT RECOMMENDED TO EXCEED MANUFACTURERS GUIDELINES
- CARGO SHOULD BE PROPERLY DISTRIBUTED AND SECURELY ATTACHED.
- REDUCE SPEED WHEN CARRYING CARGO OR PULLING A TRAILER OR TRAILED APPLICATION EQUIPMENT AND ALLOW GREATER DISTANCE FOR BRAKING.
- NEVER ALLOW ANYONE TO RIDE ON YOUR SPRAYER OR OTHER EQUIPMENT.
- ALWAYS FOLLOW THE INSTRUCTIONS IN THE OWNER'S VEHICLE MANUAL FOR CARRYING CARGO OR PULLING A TRAILER.
- PROPER MAINTENANCE IN LINE WITH MANUFACTURER'S RECOMMENDED MAINTENANCE PROCEDURES IS ESSENTIAL.
- BEFORE APPLYING CHEMICALS, READ THE LABEL OF THE CHEMICAL MANUFACTURER OR SUPPLIER FOR PERSONAL PROTECTIVE EQUIPMENT AND OPERATE AS RECOMMENDED.
- THE SAFETY OF ALL CHEMICALS USED IN AGRICULTURE IS UNDER THE JURISDICTION OF A GOVERNMENT AGENCY, IE N.Z. MINISTRY FOR THE ENVIRONMENT; USA ENVIRONMENTAL PROTECTION AGENCY. FURTHER LOCAL GOVERNMENT OR STATE LAWS MAY APPLY.

SAFETY PRECAUTIONS

Before attempting to install or operate the equipment, read and understand the manual thoroughly. Failure to comply with this instruction constitutes improper use and will invalidate the warranty.

Throughout this manual there are highlighted text boxes containing warnings, cautions and notes.

Warnings are mandatory instructions to prevent serious injury or permanent damage.

Cautions are advisory instructions to ensure reliable operation of the equipment.

Notes are for convenient operation.

- Do not overload your spreader. The maximum permissible payload is 320 Kg.
- Never use dirty product or product with stones or lumps.
- Ensure that your towing vehicle is adequate for the task. The maximum tare weight is 450 Kg.
- If using the spreader over hilly terrain the payload should be reduced to ensure that the spreader stability is not compromised.
- Never allow anyone to ride on the spreader.
- Keep the spreader in good condition. Cleanliness and maintenance are essential for safe and trouble free operation.
- Never leave product in the hopper or store the spreader without cleaning it.
- After use always clean and service clutch mechanism

C-Dax CDIT400

OWNER'S MANUAL

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INTRODUCTION

Congratulations. You have just purchased an advanced spreader from C-Dax Ltd. C-Dax Ltd is committed to providing you, the farmer, with quality applying systems.

DESCRIPTION

The C-Dax **C-DIT400** is a ground-driven spreader designed for application of pelleted fertilisers. It can also be used for application of other products such as grass seed and magnesium oxide. The uniquely designed 400-litre translucent non-corrosive polyethylene hopper is specially profiled for good product flow and ease of filling. The convenient canvas cover is easy to remove, install and store if not required. A high-quality stainless steel agitator and shutter ensures even flow of product to the spinner. A unique spinner design ensures wide, even spread of products over 180 degrees (Urea). The heavy-duty galvanised frame is fitted with knobbly turf tyres as standard equipment. The drive train uses high quality steel and a double sealed self-aligning bearing and heavy-duty gearbox for maximum durability. While seated, the operator has access to the control handle. This handle allows disengagement and engagement of the clutch and setting of product feed rate all in one motion. Also standard are mudguards, swivel tow-hitch and a fully shrouded polyethylene front deflector to further protect the operator from product being thrown off the spinner.

Specifications

(Specifications subject to change without notice)

Dry Weight	120 Kg
Dimensions	W1900mm, H1400mm, L1850mm
Capacity	400 litre (320Kg Urea)
Drive	Ground driven (single wheel)
Wheels	18x950x8 knobbly turf tyres
Tyre pressure	15PSI (100Kpa)
Clutch	Lever operated mechanical clutch
Control	Adjustable stainless steel slide with index handle
Agitator	Mechanical arm, stainless steel
Spinner	Galvanised steel with three-position adjustable vanes
Hopper	Non-corrosive polyethylene, ergonomically designed for ease of filling and inspection
Hopper cover	Canvas cover
Frame	Galvanised steel
Gearbox	Heavy duty with double sealed bearings
Gearbox oil	400ml SAE30
Axle Bearings	Sealed ball races
Clutch bearing	Self-lubricating Vesconite bearing
Axle grease	General Purpose
Application Rate	140Kg per hectare @ 10 kph (nominal, Urea)
Spread width	18M (nominal, Urea @ 15 Kph)
Towing speed	15 Kph (Maximum recommended)

NZ , AUST & UK

Order Information

Standard CDIT400

P/N 3004

WARRANTY

1 WARRANTY AND LIABILITY

Use of the equipment

- 1.1 You must satisfy yourself as to the suitability of the equipment for your intended use(s) of the equipment.

Your relationship with the retailer

- 1.2 Where you consider you have a warranty claim (or any other claim) in relation to the equipment, you must contact the retailer who sold you the equipment, not C-Dax directly. The retailer is responsible for liaising with C-Dax in respect of your claim.

Warranty

- 1.3 C-Dax warrants to the original purchaser that the equipment is sold free from defects in materials and workmanship for a period of 12 months from date of first retail sale (6 months from date of first retail sale if the equipment is sold in the U.K.) subject to the terms set out below.

- 1.4 C-Dax will at its option repair or replace the defective equipment (or part of the equipment) or notify the retailer of the equipment to refund the purchase price for such defective equipment to you in the event of a breach of this warranty, subject to the terms set out below.

Liability

- 1.5 Except for the warranty set out in clause 1.2 above, all warranties and representations (including those expressed or implied by law) in respect of the equipment or advice relating to the equipment provided to you by C-Dax are excluded to the extent permitted by law.
- 1.6 Notwithstanding anything else in this manual, C-Dax's maximum liability to you (in the event that such liability exists) in respect of any breach of warranty, any matter set out in this manual, or for defective equipment or advice relating to the equipment provided is limited at C-Dax's option to:
- (a) repairing or replacing the equipment (or part of the equipment); or
 - (b) notifying the retailer of the equipment to refund the price for the equipment paid by you.
- 1.7 Notwithstanding anything else in this manual, in no event will C-Dax be liable, whether in contract, tort (including negligence) or otherwise:
- (a) where you have altered or modified the equipment, misused or misapplied the equipment, or the equipment has been subjected to any unusual, excessive or non-recommended use, service or handling (including as set out in this manual);
 - (b) where the equipment is not transported, stored, handled or used in accordance with any directions given by C-Dax (or the retailer) to you (including as set out in this manual);
 - (c) where the equipment:
 - (i) has been subject to neglect, accident or hireage, or the damage arises from fair wear and tear, battery damage or chemical attack;
 - (ii) has been built to a customer's specifications; or

(iii) has been dismantled, repaired or serviced other than by an authorised service agent of C-Dax;

(d) for loss or damage caused by any factors beyond C-Dax's control; or

(e) for any loss of profit or revenue, or for any special, indirect, incidental or consequential damage, loss or injury of any kind suffered by you.

1.8 Where C-Dax elects to repair or replace the equipment it will use reasonable endeavours to do so as soon as practicable but will not be liable for any delay in doing so.

1.9 You agree that the transactions entered into between you and the retailer (and C-Dax) are for the purposes of trade and that, having regard to all relevant circumstances of the transactions, it is fair and reasonable that the provisions of the Consumer Guarantees Act 1993 (NZ) do not apply to those transactions to the fullest extent permitted by law.

OPERATION

The product to be spread is placed in the hopper. When the spreader is towed forward, the right hand wheel drives through the lever operated mechanical clutch and gearbox to turn the spinner in a clockwise direction. When the control handle is in the disengage position (fully back) the clutch is disengaged and the shutter is closed. Pulling the handle forward (towards the operator) engages the clutch and rotates the shutter located at the bottom of the hopper to an open position. The size of the opening is set by a shutter stop lever, which locates into one of nine pre-set positions.

An extension of the spinner boss is connected to a stainless steel agitator arm inside the bottom of the hopper. The agitator ensures that product flows continuously out of the hopper to the spinning disk.

A delivery chute on the bottom of the hopper ensures that product is delivered to the correct spot of the disk so that the deflectors distribute the product over a wide angle behind and to each side of the spreader.

The clutch system can be engaged or disengaged at up to 5KPH while the spreader is in motion.

The cover can be fitted to prevent rain and debris from entering the hopper.

WARNING

To prevent premature failure or damage to the CDIT400 clutch system, do not engage or disengage the clutch at speeds in excess of 5 KPH.

CALIBRATION

1. Ensure the control handle is fully back (clutch disengaged, shutter closed).
2. To calibrate your spreader, place a measured amount of product (10 Kg) in the hopper.
1. Set the Shutter Stop Lever to the position (1-9) indicated in the Calibration Guides below. Hole position 9 (shutter fully open) is denoted by two holes vertically one above the other.
2. Tow the spreader at the desired speed and pull the control handle forward to engage the clutch and open the shutter.
3. When the product has been exhausted, measure the distance covered and band width in metres. It is recommended that this be done over an area where the product can be seen on the ground so that the spread width can be measured.
4. Check the application rate using the following formula:

$$\text{Rate (Kg/ha)} = \frac{\text{product applied (Kg)} \times 10,000}{\text{distance travelled (metres)} \times \text{spread width (metres)}}$$

5. Adjust either the Shutter Stop Lever or the speed of travel until the desired application rate is achieved.

NOTE

Because of variations in product characteristics, speedometer calibration and driving speed, the information in the calibration guide should be regarded as a starting point only. It is recommended that the spreader be calibrated before use.

Calibration Guides

Urea or DAP Application Rate (Kg/ha), 10m Nominal Spread

Average Speed (Kph)	Application Rate (Kg/ha) for given Lever Position						
	3	4	5	6	7	8	9
10	14	52	85	138	165	167	171
11	13	47	77	125	150	151	155
12	12	43	71	115	138	139	142
13	11	40	65	106	127	128	131
14	10	37	61	98	118	119	122
15	10	35	57	92	110	111	114
16	9	32	53	86	103	104	107
17	8	30	50	81	97	98	100
18	8	29	47	77	92	93	95
19	8	27	45	73	87	88	90
20	7	26	42	69	83	83	85

Other Products, Average Speed 10Kph

Product	Rate (Kg/ha)	Shutter Setting (Lever Position)	Nominal Spread (Metres)
Super phosphate	100	7	12
30% Potassic Super	100	8	10
Rye Grass	30	3	4

Magnesium Oxide

Magnesium Oxide powder is applied at a rate determined by the number of cows to be treated. When spreading this product, calculate the weight of powder to be applied and apply this amount using shutter setting 4 or 5. Because this product may set hard if left exposed to air, it must not be stored in the machine even for a short time. Load the spreader only with the amount required to be spread and clean **all** traces of product from the machine after use.

OPERATING THE SPREADER

When the spreader has been correctly calibrated, the hopper may be filled to the required level and spreading commenced.

To reduce agitator damage to product and to ensure that product is not forced past the agitator shaft when towing the spreader to the area to be treated, the drive to the gearbox should be disconnected by ensuring the control lever is in the disengage position (fully back).

WARNING

To prevent damage to the spreader do not tow the spreader at speeds in excess of 15 Kph.
To prevent damage to the mechanical clutch do not engage or disengage the clutch on the CDIT400 at speeds in excess of 5 KPH.

CAUTION

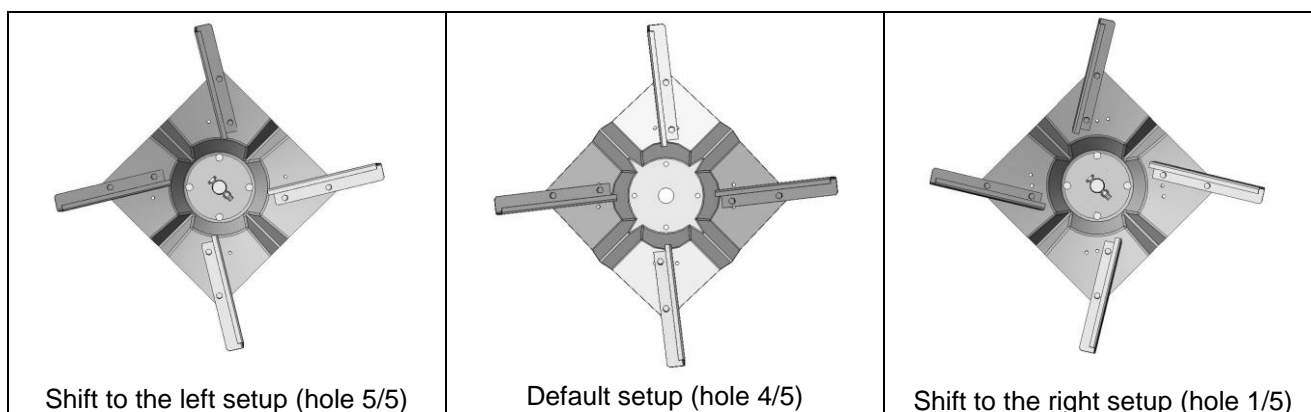
The double roll pins present in the clutch assembly are designed to shear if subject to excessive use (preventing greater damage to the rest of the unit). If you find these pins are continually breaking, engage the clutch at a slower speed.

To prevent inadvertent operation of the shutter while the spreader is in transit it is recommended that the Shutter Stop Lever be moved to Position 0 to lock the shutter closed.

To prevent the shutter from vibrating closed when the spreader is operated over rough ground, the Control Lever friction may be increased by tightening the adjustment nut at the bottom of the Handle.

Adjusting the Spread Pattern

The spreader has been set up for spreading pelletised fertiliser. When spreading lighter products or products with a high powder content it may be necessary to adjust the deflectors on the spinner to centralise the spread pattern. To shift the pattern to the left (facing forward) the inside end of the vanes should be moved anti-clockwise. To shift the pattern to the right (facing forward) the inside end of the vanes should be adjusted clockwise. These positions are highlighted in the following diagram.



WARNING

To prevent damage to the spinner and shrouds, do not operate the spreader unless the screws are tight.

Fitting the Cover

To fit the rain cover to the hopper, stretch the cover over the hopper, first locating the rear of the cover. Pull the cover forward until it wraps over front edge of the hopper.

MAINTENANCE

The following maintenance actions are mandatory for reliable use of the spreader.

Before Use

Check the tyre pressures and charge with air as required. The correct pressure is 15PSI (100Kpa).

Disengage the clutch by ensuring the control lever is fully back then turn the spinner by hand to ensure that it is free to turn without interference.

Check the hopper to ensure that no debris is inside.

If the spreader has not been used for some time, grease the wheel bearing located in the pillow block mount near the drive wheel.

Check the gearbox for leaks. If leaks are detected it will be necessary to drain and replenish the gearbox with 400ml of SAE 30 oil.

CAUTION

To replenish the gearbox, the spreader may be inverted to place the filler plug uppermost. However, in doing so extreme care must be taken to prevent damage to the spinner and deflectors.

After Each Use or Daily When In Use

Remove all traces of product from the spreader by brushing or washing. Pay particular attention to areas where product has accumulated and built up. Remove by scraping if necessary taking care not to damage the surface finish of the spreader or its components.

If washing, do not direct high-pressure water onto the gearbox, axle or wheel bearing seals.

After washing, apply grease to the grease nipple on the wheel bearing and apply water displacing fluid such as WD 40 or LPS3 to all metal parts.

Check for damaged or worn components and replace as required.

NOTE

To ensure trouble free operation of the mechanical clutch, pay particular attention to cleaning and removal of any product build-up on the unit.

HINTS

The clutch mechanism in the axle assembly utilises a stainless steel shaft and with self-lubricating plastic bushes on the moving part of the clutch. This arrangement does not require greasing and doing so may attract unwanted particulate into the mechanism.

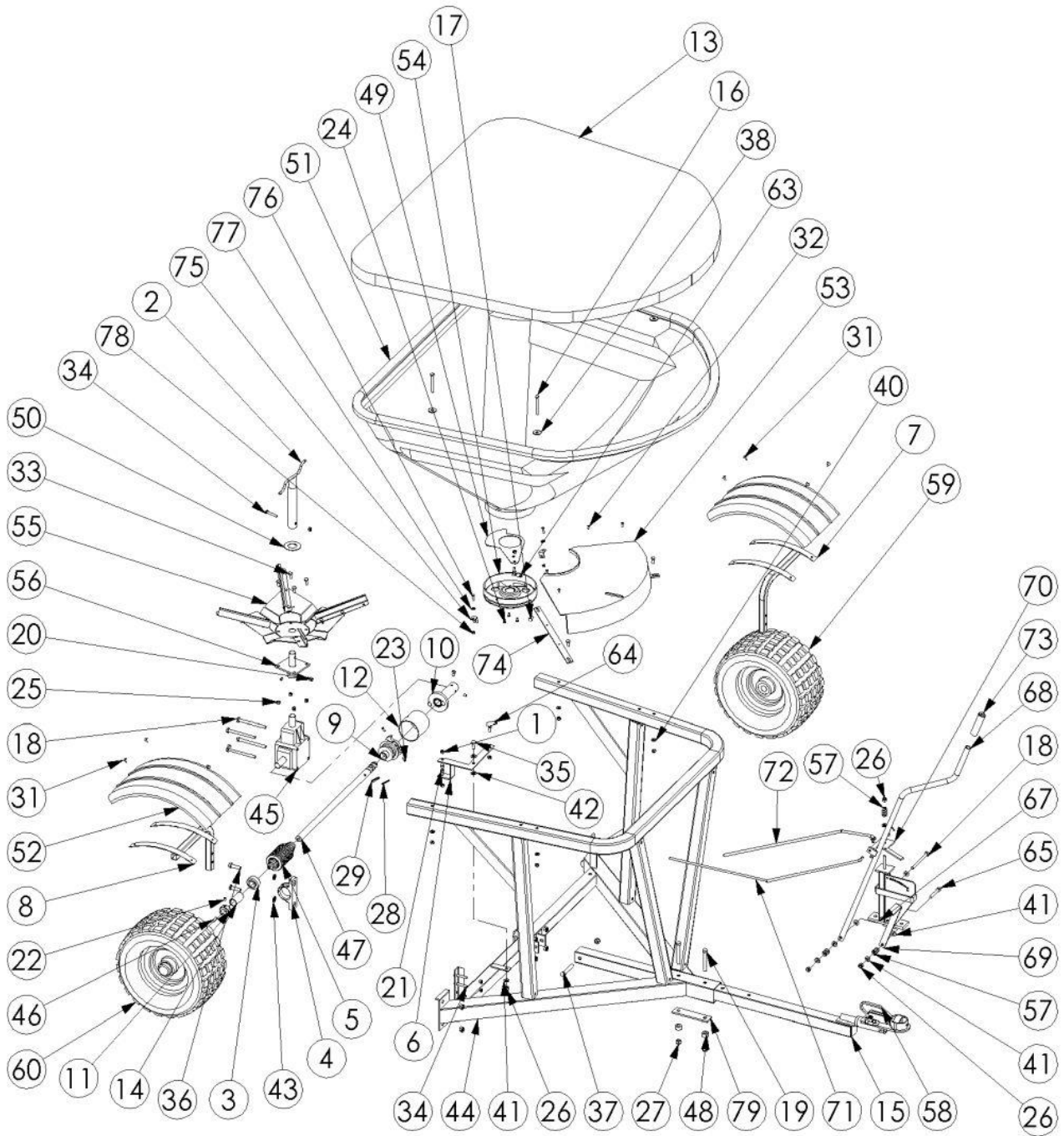
If the drive axle is removed from the axle housing for any reason care must be taken to ensure that both the axle scroll and bush are clean and free of debris before reassembly.

To remove the agitator from the hopper, remove the bolt, which attaches the agitator shaft to the spinner flange assembly then withdraw the agitator from inside the hopper.

When ordering replacement parts always quote the spreader Serial Number and the Part Number of the required part.

The mechanical clutch engage/disengage bolt, which operates the clutch head is intended as a replacement item. If excessive wear is noticed, remove the bolt and replace with part number #2890-0816.

PARTS DIAGRAM



Item 79: Transit-Plate is used to hold the lever in place during transit when the drawbar is not attached.

PARTS LIST

Item No.	QTY.	e9 Part no	e9 Description
1	3	3170-0010	Fastener-Nut-Nyloc-M10-ZP
2	1	1036-8240	Agitator-Spreader-CDIT300/400-In-Ex300/400-SS
3	1	1140-1200	Bearing-Ball-Pillow Block-Drive Axle-Spreaders
4	1	1140-4000	Bearing-Housing-Pillow Block-Drive Axle-Spreaders
5	1	1280-1600	Boot-Clutch-Convolute-CDIT300/400-Rubber
6	1	1300-3010	Bracket-Clutch Engager-CDIT300/400GT-ZP
7	1	1300-6800	Bracket-Mudguard-CDIT300/400/MM165-LH-GL
8	1	1300-6801	Bracket-Mudguard-CDIT300/400/MM165-RH-GL
9	1	2100-2300	Clutch-Engager-CDIT400-ZP
10	1	2100-6000	Clutch-Pin Engager-CDIT300/400-ZP
11	1	2150-0025	Collar-Shaft-ID25-ZP
12	1	2250-1600	Cover-Clutch-CDIT300/400-OD 90x90 Long-Grey-PVC
13	1	2250-4104	Cover-Hopper-Silver Fabric-Spreader 400/CDIT400
14	1	2250-7900	Cover-Shaft-Drive Axle-60mm Long-CDIT400GT-PVC
15	1	2550-1400	Drawbar-CDIT400GT-GL
16	4	2810-0880	Fastener-Bolt&Nut-Hex-304 Grade-M8x80-Stainless
17	2	2840-0816	Fastener-Bolt&Nut-Hex-8.8 Grade-M8x16-ZP
18	5	2840-1120	Fastener-Bolt&Nut-Hex-8.8 Grade-M10x120-ZP
19	2	2840-1290	Fastener-Bolt&Nut-Hex-8.8 Grade-M12x90-ZP
20	2	2890-0812	Fastener-Cap Head-Allen-Screw-12.9 Grade-M8x12-Black
21	2	2890-0816	Fastener-Cap Head-Allen-Screw-12.9 Grade-M8x16-Black
22	3	3010-0810	Fastener-Grub Screw-Socket Head-M8x10-Stainless
23	3	3100-0512	Fastener-Machine-Screw-Pan-M5x12-Phillips-ZP
24	3	3110-0512	Fastener-Machine-Screw-Pan-M5x12-Pozi-ZP
25	16	3170-0008	Fastener-Nut-Nyloc-M8-ZP
26	8	3170-0010	Fastener-Nut-Nyloc-M10-ZP
27	5	3170-0012	Fastener-Nut-Nyloc-M12-ZP
28	1	3210-0540	Fastener-Pin-Roll-M5x40-Black
29	1	3210-0840	Fastener-Pin-Roll-M8x40-BK
30	2	3220-0320	Fastener-Pin-Split-M3.2x20-ZP
31	8	3240-0015	Fastener-Rivet-Blind-Truss Head-3/16x15mm-Aluminium
32	4	3240-5100	Fastener-Rivet-Blind-Truss Head-5x5/8"-Stainless
33	6	3290-0820	Fastener-Set Screw-Hex-8.8 Grade-M8x20-ZP
34	5	3290-0850	Fastener-Set Screw-Hex-8.8 Grade-M8x50-ZP
35	1	3290-1025	Fastener-Set Screw-Hex-8.8 Grade-M10x25-ZP
36	2	3290-1240	Fastener-Set Screw-Hex-8.8 Grade-M12x40-ZP
37	1	3290-1275	Fastener-Set Screw-Hex-8.8 Grade-M12x75-ZP
38	4	3310-2810	Fastener-Washer-Flat-M10x32x2.5-Grade 316-Stainless
39	1	3310-5021	Fastener-Washer-Flat-M20x39x3-Axle-ZP
40	4	3310-6008	Fastener-Washer-Flat-M8-ZP
41	11	3310-6010	Fastener-Washer-Flat-M10-ZP
42	1	3310-6010	Fastener-Washer-Flat-M10-ZP
43	2	3310-6012	Fastener-Washer-Flat-M12-ZP
44	1	3500-5705	Frame-Spreader-CDIT400/Spreader 400-GL
45	1	3800-1000	Gearbox-Ferroni-RV10-Ratio 1 to 2.78

46	1	5200-6300	Machined-Key-8x8-Ground Drive Spreaders
47	1	5200-6600	Machined-Shaft-Axle-CDIT400GT-ZP
48	2	5200-9200	Machined-Bush-Round-25 ODx14 Longx12 ID-ZP
49	1	6500-7770	Profiled-Shutter-CDIT300/400
50	1	6500-9000	Profiled-Washer-Spinner Shaft-34.9x67x2mm-Stainless 304
51	1	7500-2161	Rota-Hopper-Spreader-CDIT400 SC -Yellow-MDPE
52	2	7500-2590	Rota-Mudguard-Blue-MDPE-1/4 Circle
53	1	7500-2690	Rota-Shroud-Spreader CDIT400GT-Yellow-MDPE-180 Degrees
54	1	7500-2830	Rota-Spout-Spreader-CDIT400GT-Yellow-MDPE
55	1	8200-1010	Spinner Assembly-Spreader-CDIT300/400-STAINLESS
56	1	8200-5200	Spinner-Mount-CDIT300/400/INEX300-ZP
57	3	8250-1800	Spring-Compression-Crinkle Plate-ZP
58	1	8800-3800	Tow-Coupling-Handle-Double Ended-1 7/8" x 50mm-ZP
59	1	9200-4500	Wheel-Knobbly-Bearing-18x950x8
60	1	9200-4600	Wheel-Knobbly-Keyed-18x950x8
61	1	3310-5012	Fastener-Washer-Flat-Heavy-M12x32x3-Galv
62	1	3290-1225	Fastener-Set Screw-Hex-8.8 Grade-M12x25-ZP
63	1	1110-2308	Ball-End-Internal Thread-M8-Zinc Plated
64	1	1110-2310	Ball-End-Internal Thread-M10-Zinc Plated
65	1	2840-1065	Fastener-Bolt-Hex-8.8 Grade-M10x65-ZP
66	1	3290-0616	Fastener-Set Screw-Hex-8.8 Grade-M6x16-ZP
67	1	5245-3900	Mount-Handle-CDIT300/400GT-ZP
68	1	4050-1500	Handle-CDIT300/400-ZP
69	1	4050-4250	Handle-Indicator-CDIT400GT-ZP
70	1	3990-3900	Guide-Handle-CDIT300/400GT-ZP
71	1	5050-7980	Linkage-Shutter-CDIT400GT-ZP
72	1	5050-1600	Linkage-Clutch-CDIT300/400GT-ZP
73	1	3865-3800	Grip-Handle-7/8"-PVC-Black-Plastic
74	2	5245-8015	Mount-Shroud-CDIT400/Spreader 400-ZP
75	2	1300-5200	Bracket-Lock-Hose Reel-ZP
76	2	3290-0620	Fastener-Set Screw-Hex-8.8 Grade-M6x20-ZP
77	2	3310-6006	Fastener-Washer-Flat-M6-ZP
78	2	3170-0006	Fastener-Nut-Nyloc-M6-ZP
79	1	1300-8550	Bracket-Transit Plate-CDIT400-ZP