

Heli-Wrapper

Round Bale In-Line Wrapper

Model 1500R

Manufactured in New Zealand by

Reese Engineering Ltd

P.O. Box 5056,
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New Zealand

D1846

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Operating & Maintenance Instructions

introduction

The UFO Heli-Wrapper is a 3 point linkage mounted machine designed with simplicity, and robustness as the initial criteria. This is reflected in reduced maintenance and capital outlay essential for an implement which is used for a relatively short period each year.

assembly

Refer to the machine exploded view drawing at the rear of this manual.

Minimum disassembly has been done to facilitate packaging for transport. Fasteners have been positioned into their respective holes for simplicity in re-assembly.

1. Remove all loose components packaged within the machine and place on floor for easy identification.
2. With aid of a lifting device, remove the wooden pallet then bolt the two major frame assemblies together with the 6 U bolts supplied. There are positioning stops to ensure frame location is in the correct place.

NB The 2 centre U bolts must be positioned so that their securing plate projects partly over the open end of the bale pusher slide channels to act as a stop.

3. At this point the machine can be fitted to the tractor 3 point linkage to enable fitting of the skid. **NB**, Ensure the top link support chain provided is connected the rear holes of the top link plates before lifting.
4. All the hydraulic equipment is in an assembled state in the hardware box. Fit the components to the machine frame and clamp the hoses in the relevant locations. Ensure sufficient slack is available to allow the tractor hitch frame to be moved between operating and transport positions. Connect the 2 hydraulic ram hoses to the control block noting the ram extend and ram retract markings at the block connection ports.
5. Fit the aluminum wrapper hoop to the machine ensuring that it is placed so that when the wrap dispensers are fitted, the dispenser support stays will point in direction of hoop rotation. Hoops rotate in a clockwise direction when viewed from the bale exit ramp end of the machine.
6. Fit dispensers as viewed in the Heli-Wrapper diagram.
7. Fit machine guards.

specifications

Transport width (guards removed)	(8' 6") 2.5m
Overall height	(9' 6") 2.9m
Weight (unladen)	approx (880 lb) 480Kg
Round bale size up to (5')	1500mm diameter & length
Tractor linkage	3 pt linkage - Category 2
Hydraulic pressure (min)	1500 psi
Hydraulic oil flow (min)	14L/m(3gal/min)
Hydraulic connections	Standard male Q/R
Film Dispensers	2
Film stretch	55%
	(35% pre stretch dispensers available)
Film layers	4 (2 & 5 as options)
	(variable speed unit optional)
Film	25/30 micron,

Bale wrapping is a two tractor operation; one for loading bales into the Heli-Wrapper and the other to supply a hydraulic source, start stop control and steerage.

1. Situate the wrapper in the work position (see "transport" sector in this manual) where the wrapped row is to commence, tractor facing the direction of travel.
2. Load both film dispensers with film as shown on the dispenser decal.
As a safety measure and to prevent the hoop revolving when loading new rolls of film it is advisable to turn the stop valve fitted to the hydraulic motor to the off position.
3. From the exit ramp end, load the first bale onto the wrapper, spanning the wrapping hoop gap (bale will rest on the support pins and the upper roller of the exit ramp).
4. Place 2 or 3 more bales up against the first one on the ramp to act as a stop.
5. Manually wrap one end of a bale ensuring that there is a minimum of 4 layers of film across the flat end or fit a custom end cap.
6. Load this bale into the loading cradle with the wrapped end facing the previously loaded bales.
7. Turn the valve on the hydraulic motor to "on" and the open/close valve on the hydraulic manifold to "Position 1" (anti-clockwise). The pressure adjustment valve on the manifold need not be adjusted at this stage.
8. Activate the hydraulic ram to push the bale through the hoop until the start of the end wrapped bale is centralised between the film dispensers. (if the hoop commences rotating as the pushing pressure builds up, the pressure setting of the valve on the hydraulic block will have to be increased - loosen the locking ring before turning clockwise)
9. Pull the end of the wrapping film from the nearest dispenser and attach it to the film catch.
- 10.



DANGER

ROTATING PARTS
**WRAPPING HOOP COMMENCES
ROTATION DURING OPERATION
WITHOUT WARNING. ENSURE
GUARDS ARE FITTED.**



CAUTION

**GUARDS HAVE BEEN SUPPLIED WITH THIS
MACHINE. ENSURE THESE HAVE BEEN
FITTED OR THE HYDRAULIC DRIVE
MOTER HAS BEEN ISOLATED BY THE STOP
VLAVE.**

10. Rotate the hoop for ½ turn then attach the film from the second dispenser.
11. Set the open/close valve on the hydraulic manifold to "Position 2" (clockwise) then activate the tractor hydraulics. Wrapping will commence and bale will be progressed forward until the ram reaches the end of its stroke. At the end of the ram stroke wrapping ceases automatically.
12. Retract the ram, load another bale then repeat the wrapping cycle. The bales will move forward down the exit ramp and when sufficient back pressure is attained the tractor and wrapper will be pushed forward. (If the tractor/wrapper forward movement does not commence by the time the first bale contacts the ground, then it may be necessary to assist by engaging low gear in the tractor and gently easing forward).
13. Once the tractor/wrapper moves forward without assistance then turn the open/close valve on the hydraulic manifold to "Position 1"(anti-clockwise) and adjust the adjacent pressure setting valve so that hoop rotation commences just before forward movement commences.
14. Tractor driver/operator controls ram commence and retract actions, monitors film usage, tractor steering and general wrapper operation.
15. At the end of a row, manually wrap the end of the last bale as done in operation 3 and place it in the loading cradle, wrapped end facing the loading tractor.
16. Continue the wrapping cycle.
17. Retract the ram and fit the pusher beam and pusher plate into the pusher frame. Continue wrapping until the wrap covers the manual wrapped section and almost reaches the end of the bale.
18. Cut the film wrap at the dispensers, and then continue pushing the bale to the limit of ram stroke.
19. Retract the ram and reposition the pusher beam to give additional length for the final push.
20. To commence a new row, the wrapper may be lifted a little on the tractor 3 point linkage and dragged gently to the new start position. **If returning to full transport position, remember to attach the top link support chain and top link, prior to lifting the machine clear of the ground.**



ROTATING PARTS
WRAPPING HOOP COMMENCES
ROTATION DURING OPERATION
WITHOUT WARNING. ENSURE
GUARDS ARE FITTED.



GUARDS HAVE BEEN SUPPLIED
WITH THIS MACHINE. ENSURE
THESE HAVE BEEN FITTED OR THE
HYDRAULIC DRIVE MOTOR HAS
BEEN ISOLATED BY THE STOP
VALVE.

For 3 point linkage transport it is important to attach the machine top link support chain to the rear hole of the machine top link plates. **Damage will occur if this is not done.**

For transport on public thoroughfares, guards must be removed from the machine to reduce the overall width.

Guards must be refitted before putting the machine into use.

TO TRANSPORT POSITION

1. Lift the bale exit ramp to the transport position.
2. Withdraw the transport lock pin.
3. Drive the tractor slowly with a hard left hand lock dragging the machine until it is positioned beyond right angles to the tractor.
4. Reverse the tractor slowly with a hard right hand lock until the hitch frame beam engages with the locating pin.

Using the transport lock pin removed in 2 above, connect the top link support chain to the rear hole of the top link plates and connect the tractor top link to the machine.

TO WORK POSITION

This is done in reverse manner to that shown above. **Ensure the tractor top link is disconnected to avoid stress on machine.**

NOTE Ensure the top link support chain is stowed beneath the attachment beam to the stowage pin well clear of the film dispensers when they operate.



CAUTION

THIS MACHINE IS OVERWIDTH GUARDS FITTED. THESE MUST BE REMOVED TO COMPLY WITH ROAD TRANSPORT REGULATIONS.



CAUTION

THIS MACHINE IS DESIGNED TO BE RAISED AND LOWERED HYDRAULICALLY ON TRACTOR LINKAGES.

ENSURE THE AREA IS CLEAR OF PEOPLE AND OBSTACLES WHEN OPERATING

Storage is the key factor in the maintenance requirements of all machinery.

It is recommended that this machine:

- Be stored under cover
- Be cleared of grass and dirt which will accelerate corrosion.
- Have rubber based and synthetic components protected from strong daylight.

FITTING PUSHER FRAME RETURN STROPS

1. Turn stop valve fitted to the hydraulic motor to the "off" position.
2. Turn valve on the hydraulic manifold to "open". (**Position 1, anti-clockwise**)
3. Fit a temporary 75mm (3") stop in the end of each of the pusher frame slide channels (at the end of the bale-loading cradle where the hydraulic ram securing nut is).

N.B. Two pieces of 75 x 50 (3x2") timber are ideal stops. 100mm (4") stops are satisfactory, but do not exceed this measurement.

1. Hydraulically power the pusher frame until it contacts the temporary stops. This will release the tension on the pusher wire rope. You will then be able to remove the pusher wire rope from its locating groove on the underside of the pusher frame. Lay the pusher wire rope out flat along the main beam to ensure it can not foul the hydraulic ram when you move it.
1. Hydraulically power the pusher frame forward sufficiently to relieve tension on the return wire rope. It may now be released from the pulleys on the hydraulic ram, and removed.
2. New wire ropes may now be fitted in reverse procedure of above. Ensure that you adjust them so they sit evenly on each side when tensioned.



HYDRAULIC RAM MAY EXERT UP TO 10 TONS PRESSURE AT THE BALE PUSHER FRAME. BEWARE WHEN WORKING IN THIS REGION.



WRAPPING HOOP MAY COMMENCE ROTATION WITHOUT WARNING WHEN THE HYDRAULIC RAM IS ACTIVATED.

KEEP CLEAR

ADJUSTMENT OF HOOP POSITIONING ROLLERS

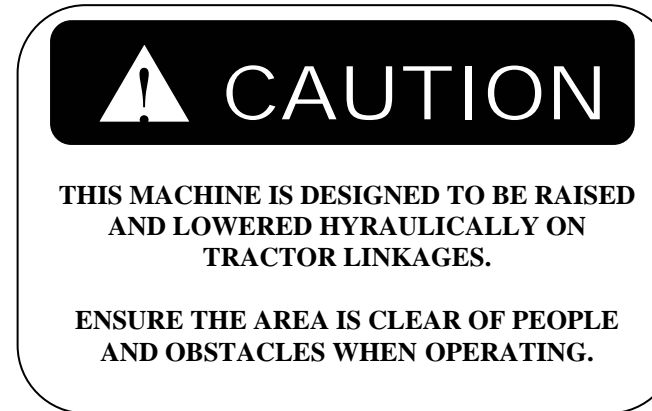
There are 4 rollers positioned in the wrapping hoop to retain alignment of the hoop relative to the drive and idler wheels. These rollers can be adjusted by positioning and locking their spindles in the slotted attachment holes.

mounting instructions

Heli-Wrapper is designed to mount direct on Category 2 equipped tractors. A preset length chain is provided to reinforce the machine top link when transporting in the "folded behind" configuration. The work configuration lock pin is used in these conditions to connect the chain to the rear side of the machine top link.

Fitting of this chain when transporting is most important.

The tractor top link should be disconnected when the wrapper is lowered and ready for work. This will avoid unnecessary stress when operating on uneven ground. **Ensure it is reconnected prior to transport.**



servicing

This machine is fitted with synthetic (plastic) bearing surfaces. These do not require lubrication and should not be subjected to any liquid that will attract or retain dirt particles. If cleaning of these components or the bearing becomes necessary, soapy or fresh water should be used.

Prior to initial use:

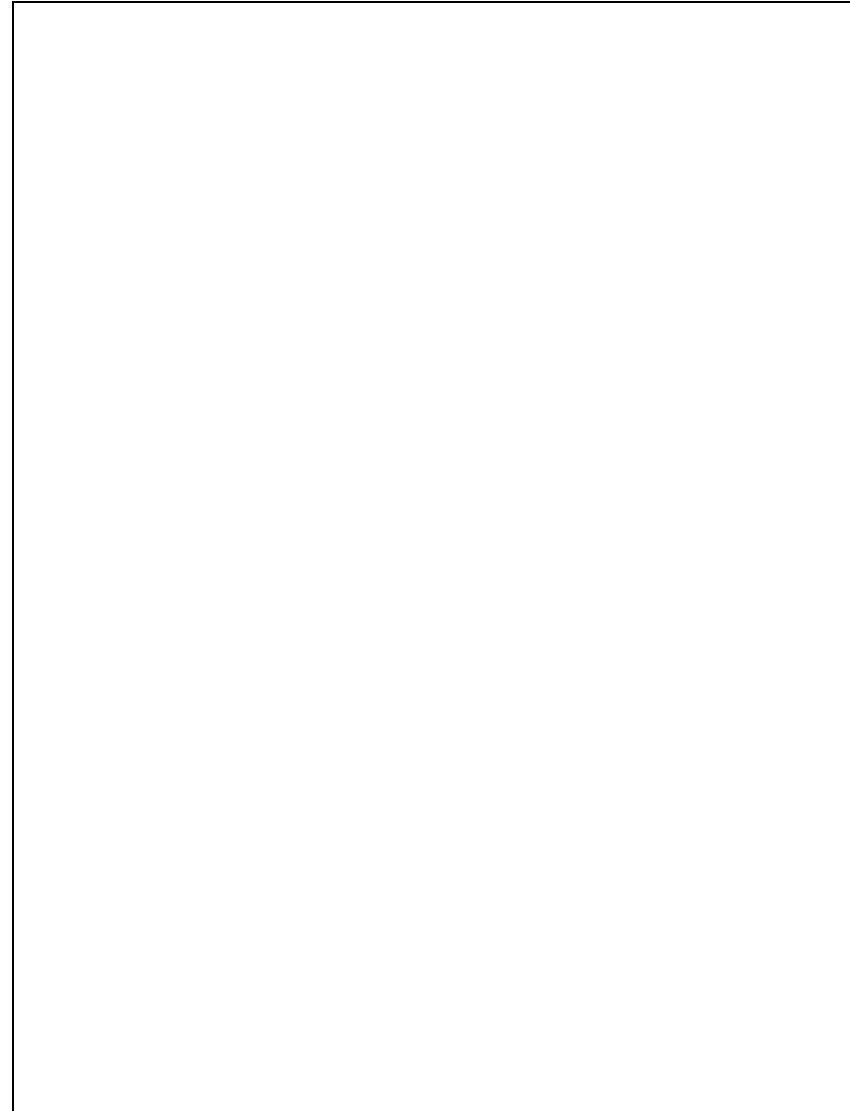
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| 1. Grease | Hitch frame pivot | 2 points |
| | Hoop support wheel (lower RH) | 1 point |
| | Hoop upper support wheels (2) | 1 point |
| | Return strop threaded adjusters | Apply |
| 2. Oil | Dispenser chains & sprockets | Apply light oil sparingly |
| | Check pneumatic tyre pressure | 45 Psi |

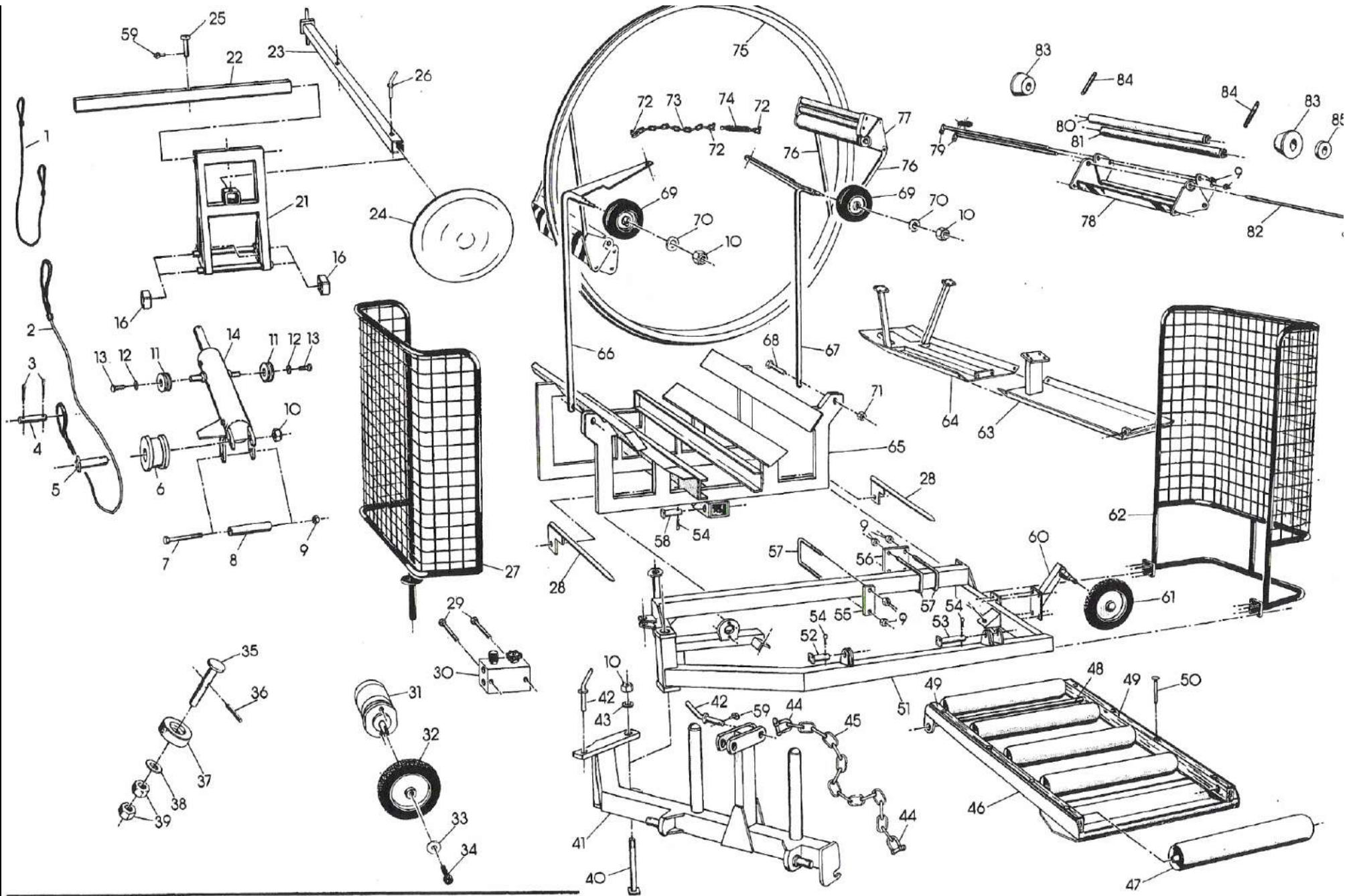
Weekly

- | | |
|---------------------------------------|--------|
| Dispenser chains & sprockets as above | |
| Check all bolts for tightness | |
| Pneumatic tyre pressure | 45 Psi |
| Tyre wear | |
| Return strops tension adjustments | |
| Main strop for deterioration | |

Annually

- | |
|-----------------------------------|
| All servicing points listed above |
| Machine for general wear |





REESE Heliwrapper 1500R

Item No.	Part No.	Description
1	00150	WIRE ROPE 5.0mm
2	00151	WIRE ROPE 11mm
3	9276	SPLIT COTTER PIN M8 x 40
4	00132	PIN - PUSH CABLE/RAM - CRADLE
5	00131	AXLE - RAM WEBBING ROLLER
6	00129	RAM ROLLER Dia 160mm CAST IRON
7	8607H	BOLT M16 x 140 ZP HT8.8
8	00117	NYLON ROLLER - UNDER RAM
9	9151	NUT NYLOC M12
10	8	NUT NYLOC 1" UNF 12
11	00128	RETURN ROPE ROLLER - 90mm MS
12	9042	WASHER FLAT M10x24odx1.5 ZP
13	8401	SETSCREW M10 X 16 ZP
14	00130	HYD RAM - BALE PUSHER 850mm
15	9171	NUT M20 PLAIN ZP
16	00126	NYLON SLIDE BLOCK BALE PUSHER
19	10267L	LH TENSION SPRING- 9.0mm -3100
21	00111	BALE PUSHER - WELDED ASSY
22	00111-14	BALE PUSHER - CROSS BAR EXTN
23	00112	BALE PUSHER POLE - WELDED ASSY
24	00113	BALE PUSHER PLATE -WELDED ASSY
25	00157-01	PIN - BARE PUSHER BAR EXTN
26	00139	PIN - TRANSPORT & PUSHER POLE
27	00116R	SAFETY GUARD - WELDED ASSY RH
28	00109L	BALE SUPPORT SPIKE - LH
	00109R	BALE SUPPORT SPIKE - RH
29	8202H	BOLT M6 x 60 ZP HT8.8
30	00145	HYDRAULIC CONTROL VALVE ASSY
31	00144-120	HYDRAULIC MOTOR
32	00143	LOWER DRIVE WHEEL c/w TYRE
	00154	WHEEL RIM DRIVE
	00155	TYRE
	00156	TUB

Item No.	Part No.	Description
33	9022	WASHER FLAT PENNY M6 ZP
34	8203	CAPSCREW 1/4"ww x 3/4" SCHS
35	00140	SPINDLE - HOOP GUIDE ROLLERS
36	9251	TENSION PIN 6 x 40
37	00140-02	GUIDE ROLLER
38	9062	WASHER FLAT M16x38odx3 ZP
39	9161	NUT M16 PLAIN ZP
40	00137	PIN - HITCH FRAME PIVOT
41	00100	HITCH FRAME - WELDED ASSY
42	00139	PIN - TRANSPORT & PUSHER POLE
43	39	WASHER 25mm x 10mm THICK
44	9284	BOW SHACKLE 10 x 11 HT
45	00152	CHAIN - TRANSPORT SUPPORT
46	00103	BALE RAMP WELDED ASSY - BARE
47	00104	BALE ROLLER - WELDED ASSY
48	00104-02	BALE ROLLER - AXLE TUBE
49	00153	BALE RAMP -TIMBER BEARER KWILA
50	8410	COACHBOLT M10 X 90 GALV
51	00101	MAIN FRAME - WELDED ASSY
52	00135	PIN - 45mm - BALE RAMP
53	00136	PIN - 115mm - BALE RAMP
54	9281	"R" CLIP 4mm ZP
55	00105	U-BOLT PLATE - 2 HOLE
56	00106	U-BOLT PLATE - 4 HOLE
57	8514	BOLT M12 x 140 ZP
58	00138	PIN - TRANSPORT CHAIN ANCHOR
59	9286	LYNCH PIN 8mm (1/4")
60	00114	IDLER ARM - WELDED ASSY
61	00142	LOWER IDLER WHEEL c/w TYRE
	00155	TYRE
	00156	TUBE
	573	WHEEL RIM

Item No.	Part No.	Description
62	00116L	SAFETY GUARD - WELDED ASSY LH
63	00107	UNDER HOOP SKID - WELDED ASSY
64	00108	UNDER CRADLE SKID -WELDED ASSY
65	00102	CRADLE FRAME - WELDED ASSY
66	00115R	GUIDE WHEEL ARM - ASSY RH
67	00115L	GUIDE WHEEL ARM - ASSY LH
68	8605	BOLT M16 x 80 ZP HT8.8
69	00141	TOP IDLER WHEEL
70	9072	WASHER FLAT 1"(48odx1.6) ZP
71	16A	NUT NYLOC M16
72	9285	D-SHACKLE 6.0mm GALV.
73	00119	GUIDE ARM TIE CHAIN
74	00147	TENSION SPRING - GUIDE ARMS
75	00110	HOOP - BARE WELDED ASSY
76	00118	BRACE TUBE - TENSIONER TO HOOP
77	00120-ASSY	DISPENSER COMPLETE ASSY 750mm
78	00120	DISPENSER BARE ASSY 750mm
79	00123	TENSIONER AXLE - 750mm ROLLER
80	00122	TENSIONER ROLLER 750mm 20T
81	00121	TENSIONER ROLLER 750mm 13T
NS	00149	DRIVE CHAIN - TENSIONER ROLLER
NS	00122-05	X-LUBE FLANGED BUSH
82	00124	WRAPPING AXLE - 750mm WRAP
83	00125	END CONE - WRAPPING FILM ROLL
84	00148	TENSION SPRING - TENSIONER SS
85	00120-08	DISPENSER SPACER DISC

Heli-wrapper Variable Speed Drive Box

The pre-assembled unit as it arrives, including driven axle, bearings, housings, three sprockets, spacing plate, two hoses, cover + 2 times M8 bolts + washers. **NOTE ITEM (18) IS NOT SUPPLIED IN THIS KIT, it is removed from the existing machine.**

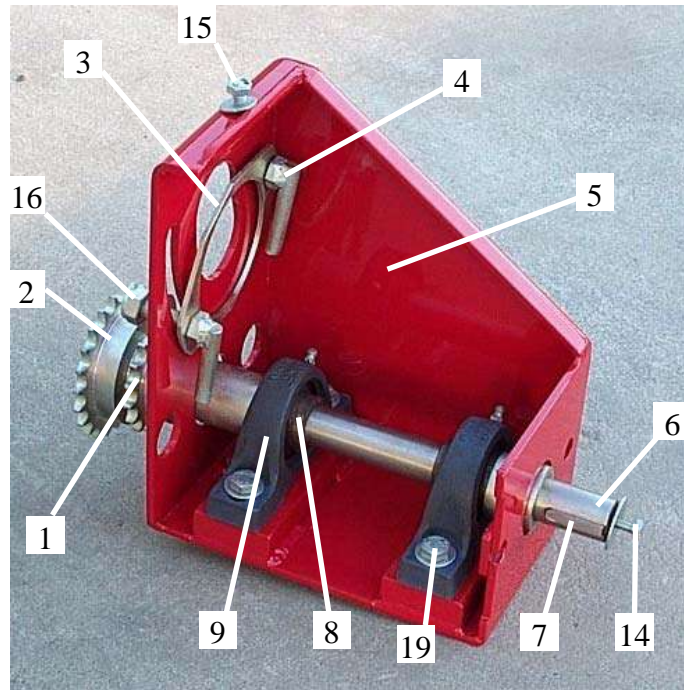


Figure 1 - Pre-assembled unit



Item	Part No.	Description
1	00174	Sprocket - 23T
2	00173	Sprocket - 17T
3	00178	Spacer
4	00182	Motor mounting bolt (x2)
5	00170	Frame
6	00171	Axle
Not shown	00180	Key - sprocket side, 51mm
7	00181	Key - wheel side, 32mm
8	9217	Bearing - YAR 205-100-2RF (x2)
9	9218	Bearing Pillow block - SKF SY 505M (x2)
10		Hose - Motor pressure, complete pre-assembled
11	H3205	Hose - BARE (used for both pressure and return lines)
12	00172	Sprocket - 15T
13	00177	Spacer
14	9190/9022	Securing bolt/washer - 1/4"UNC
15	8300/9031	Bolt/washer - cover, M8 (x2)
Not shown	00179	Plastic drive cover
16	9151	M12 Nyloc nut (x2)
17	H3211	90° elbow with running nut (3/8")
(18)		Tap and nipple - FROM OLD HOSES ON MACHINE
19	8402	Bolt - M10x35
	9042	Washer - 10x24x1.5

