

# RedGum 32000

## SUPER HDV Lifter-Splitter



## Assembly Instructions

Assembled by : \_\_\_\_\_

Checked: \_\_\_\_\_

Dealer: \_\_\_\_\_

Date: \_\_\_\_\_

## Important Safety Information

These Assembly instructions are in reference to the RedGum 32000 SUPER HDV Lifter-Splitter only.

You will require the following item to safely assembly this machine.

- A clear space free of dust and with a solid floor such and concrete or wood.
- Access to lifting device such as a chain block or crane capable of lifting 300Kgs.
- Tools: 10mm, 12mm, 14mm spanner/socket, Philips head screwdriver, Pliers and small hammer. Metal strapping cutting tool.
- PPE, gloves, safety glasses.
- This is a one person operation however an assistant will be required for heavy lifts during the assembly.

**Potential risks during assembly may include:**

Area	Description	Mitigation
Hand	Cut or abrasion from various heavy components. Crush potential from heavy items falling uncontrolled.	Wear gloves, ensure lifting is done in a controlled and approved manner
Hand/arm	Hydraulic crushing due testing operation.	Test operate unit in the appropriate manner.
Skin Injection hazard	Pressurized hydraulic oil penetrating skin.	Ensure all fitting are secure, Investigate any hose leaks and replace/repair
Burn Hazard	Skin coming into contact with hot engine parts	Wear gloves and avoid touching engine and exhaust
Trip Hazard	Tripping over objects left lying in assembling area.	Remove all packing cases and object not required in the assembly. Ensure good house keeping
Fuel/Oil Spills	Spillage during filling of oil and fuel tank	Use funnels for filling and clean up any spills when the occur

## Crated Parts List

The Crate will contain the following parts and all parts must be accounted for prior to the assembly process. Missing parts must be immediately reported to your supervisor for instructions.

During inspection of the parts make careful note of any defects, bent items, poor painting or damages in any way that may have occurred during shipping. Report any defects to the supervisor.

Inside the Crate:

- 1 Honda Engine
- 2 Axe Head Frame with work table
- 3 "Y" frame with Jockey wheel
- 4 Oil Tank / Axel
- 5 Hydraulic Cylinder
- 6 Control Unit with 4 hoses attached
- 7 2 x Wheels
- 8 2 x mud guards
- 9 20l Hydraulic Oil Container
- 10 2 x support arm (One with document canister)
- 11 1 x Hydraulic pump and coupler
- 12 Work platform extension
- 13 5 x Plastic bags
  - Wheel hub caps
  - Engine Mount bolts
  - Hydraulic coupling bolts
  - Thread tape and bolts
  - Misc nuts and bolts

Not included are:

- 1 Honda engine oil 600ml
- 2 Honda engine fuel
- 3 Assembly tools
- 4 Funnel to add 20l Hydraulic oil

Note: As of March 2023 there is missing 2 x 19mm nut and bolts for the 2 Cylinder supports.

# Assembly RedGum 32000 SUPER HDV Lifter-Splitter

## Step 1: The Crate

Place crate in open space and prepare to assemble the SUPER HDV Lifter-Splitter. Make sure there is enough space to open the crate and access all sides. Eliminate any tripping hazards.



## Step 2: Open the Crate:

Cut the support strapping and open the lid of the crate with a crowbar, cut the metal staples on the sides of the crate with an angle grinder or metal cutting device. Wear appropriate gloves and eye protection. Unfold the 4 sides of the crate. Watch for any parts moving unexpectedly during this step. Take caution with nail and staples from the packing crate.



EYE  
PROTECTION  
MUST BE WORN



HAND PROTECTION  
MUST BE WORN  
IN THIS AREA



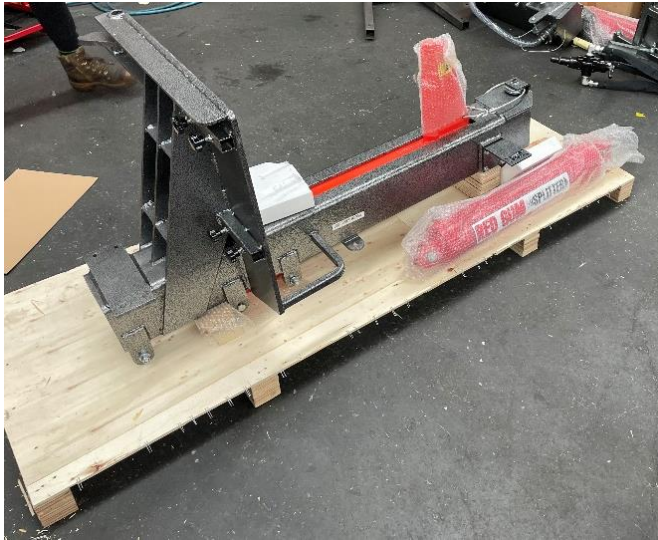
HEARING  
PROTECTION  
MUST BE WORN





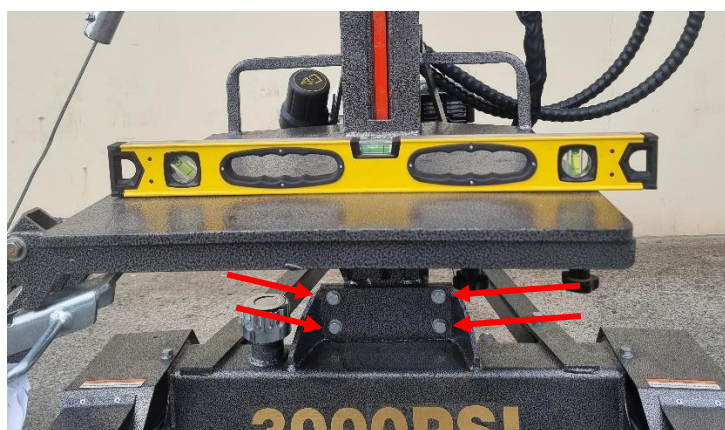
### Step 3: Unpack the Crate

Remove all smaller pieces until the main chassis is left on the bottom part of the crate.

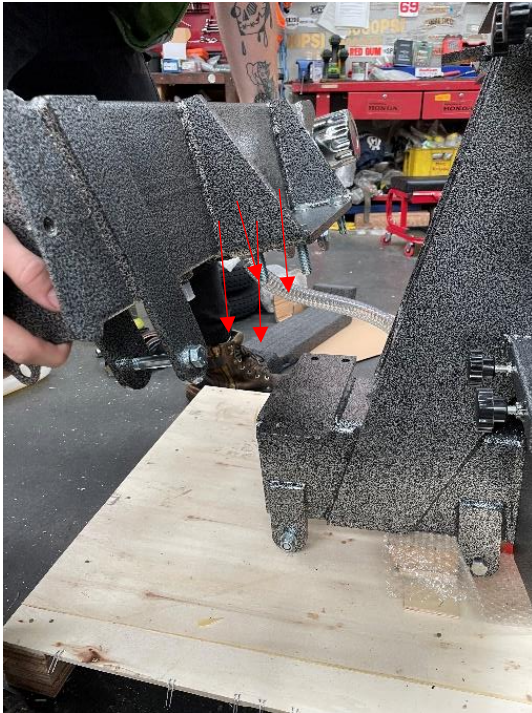
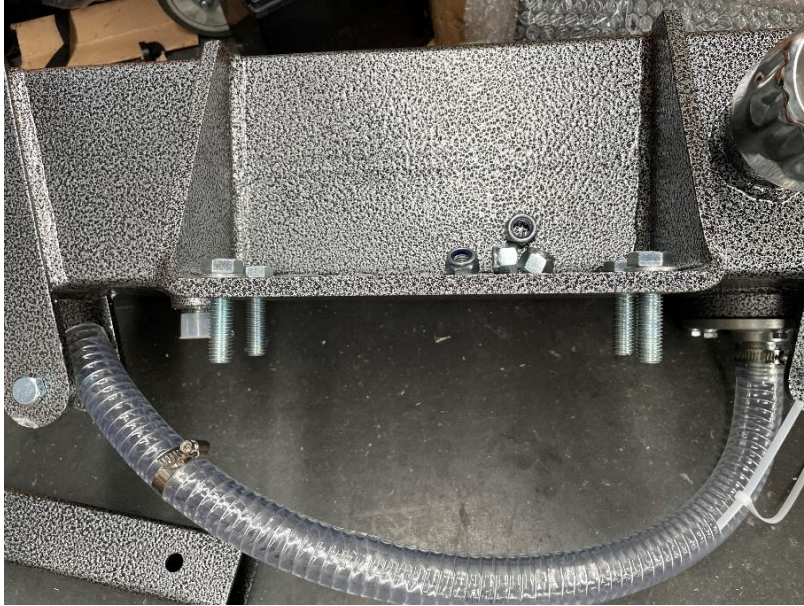


### Step 4: Main Frame Preparation

With the main frame flying horizontal (forward down) Ensure the x4 (M12 x 40mm) bolts are placed so that they are facing downwards on the tank, lift the tank and secure onto the main frame of the lifter-splitter. Fit washers and fasten the bolts. Ensure that the work table sits horizontal and the axe head frame is vertical. There will be some movement in the bolts fastening the oil tank and axe head frame. See Photo Below.







## Step 5: Fit mud guards

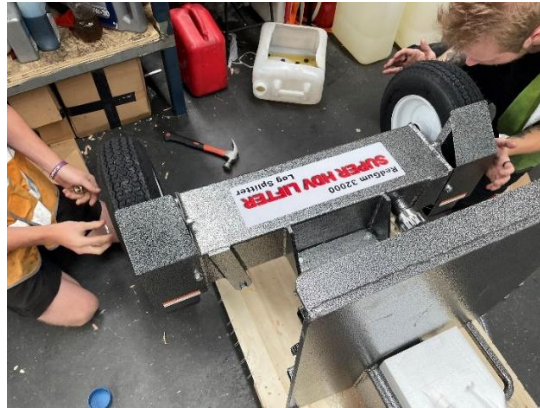
Attach the mud guards to the tank, use the 2 x M10 x 20mm to fasten the middle of the mud guard and the x4 M10 x 25mm to fasten the inner of each mud guard (Note: The bolts face away from the tyre side and the reflectors should face the same direction as the sticker on the tank, to the rear).





## Step 6: Wheels

Fit both wheels to the tank and secure with cotter pin supplied. Secure dust caps onto the wheels. Note bearings are pre greased. Tire pressures should be 30psi.



## Step 7: Lift assembly to upright position

Secure the main base of the lifter-splitter, use lifting equipment to lift the unit to the upright position. A lifting device capable of 300Kgs is required.



Lift from eyelet in main frame using a suitable gantry or similar.



**Note:** Ensure assembly is stable by keeping the lifting equipment attached until the Y frame is attached.



## Step 8: Instal Y-frame

Attached the Y frame to the main base frame whilst suspended and fit 2 x M12 x 90mm bolts supplied (Note: Do not fasten yet, complete first Step 11 and then fasten bolts.)



### Step 9a: Prepare hydraulic fittings and filter

Use Thread tape to seal hydraulic connections. Note that the filter mounting cap is directional and the wider end to be mounted nearest to the oil tank.



### Step 9b: Install oil Filter

Oil the O-ring of the filter and screw oil filter on after the housing have been secured. Tighten by hand to a firm fit.

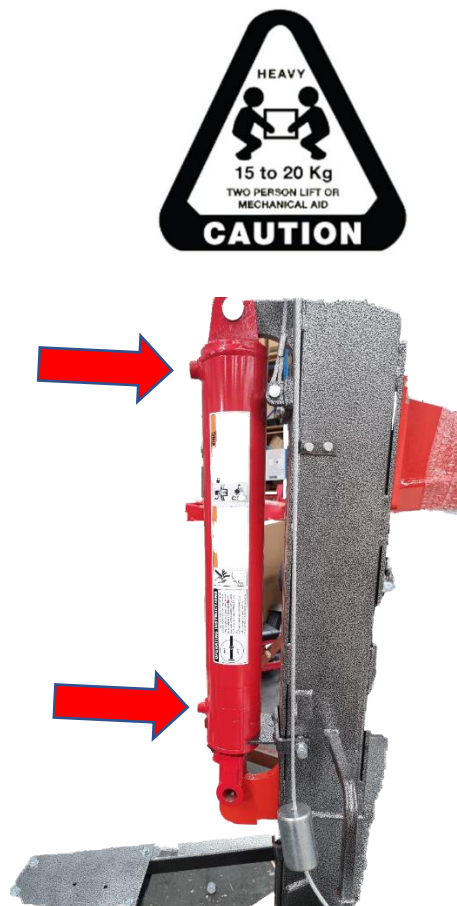


### Step 10a: Hydraulic Cylinder

This item weighs approximately 100Kgs and will require assistance for lifting. Manually lift the Cylinder in place and use the top pin first to secure the cylinder. Use cotter pin supplied to secure the pin.

Observe proper manual lifting techniques.

Ensure the plastic caps are in place on the cylinder inlet / outlet as there maybe some oil in the system and the caps prevent oil spills on the floor.





## Step 10b: Install Bottom Pin

Using lifting equipment or a pinch bar, lift the axe head upwards approx. 10mm to get cylinder to align with the axe head. Use cotter pin supplied to secure the pin.

Note: Potential hand/finger injury: Avoid placing fingers in pinch point zones.



Move the Axe Head up to align the holes to insert the bottom Hydraulic Cylinder pin

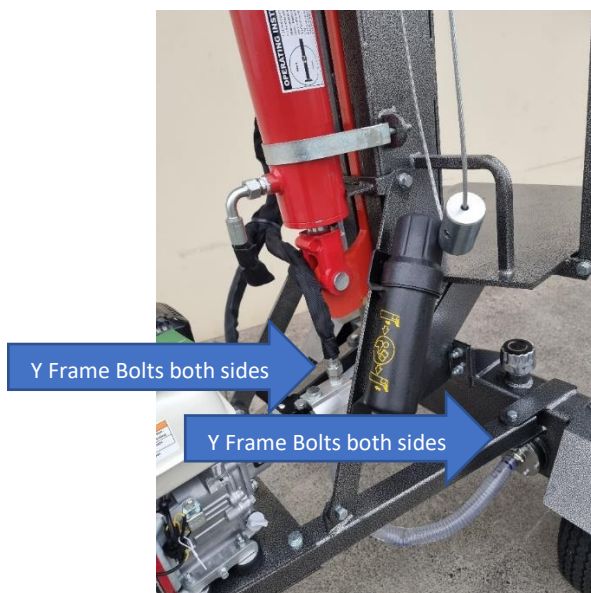
### Step 10c: Retaining Strap

Instal the retaining strap onto the cylinder.



### Step 11: Support Brackets

Instal both support bracket bars, bolts might have to loosened on both sides of the y-frame so that the bars can fit. The support bracket with the operators manual canaster (Toolbox) must be fitted on the side of the oil tank cap. Fasten bolts of y-frame and support brackets to complete the process. Tighten all bolts on the Y frame and the support brackets.



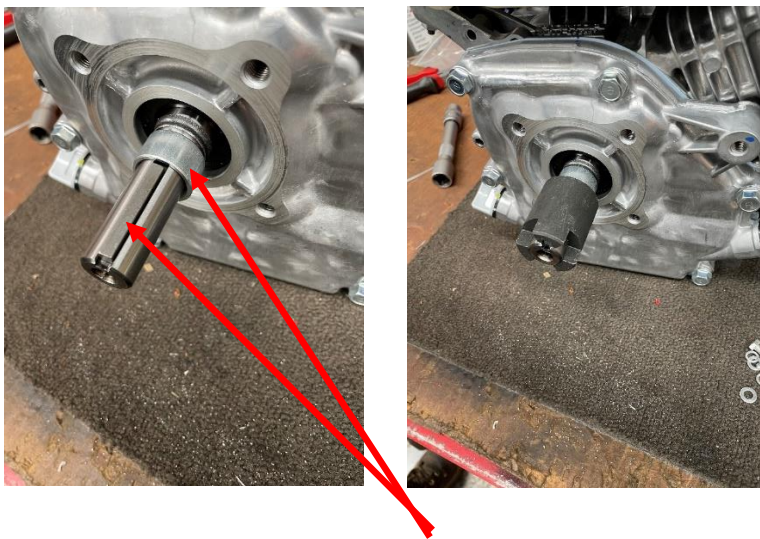
### Step 12a: Hydraulic Pump

Fitting the pump to the engine - Take small black guard off the pump spider gear casing.



### Step 12b: Spacer and Keyway

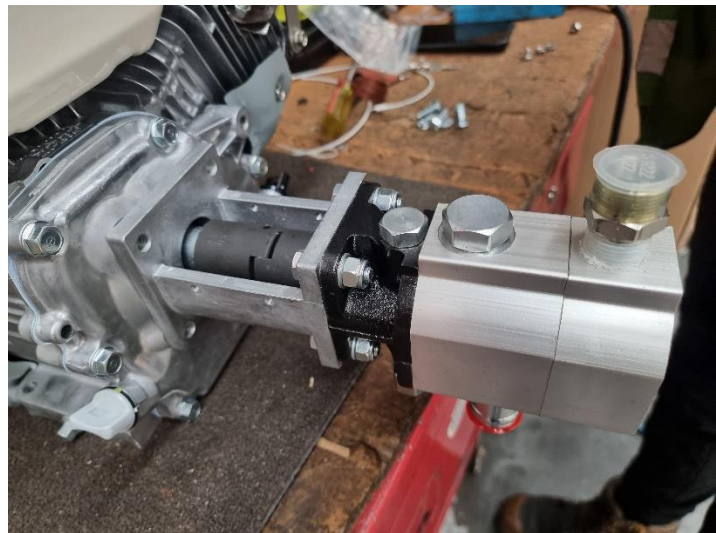
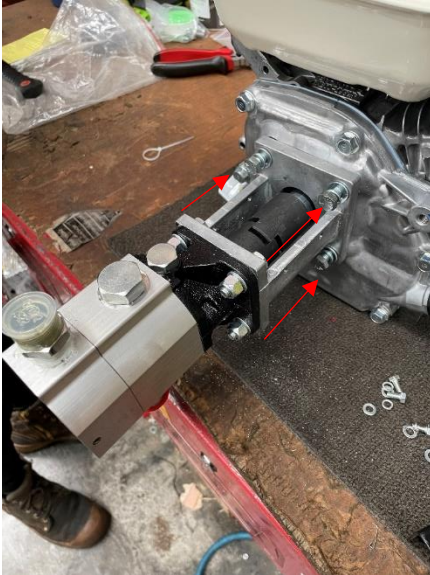
Instal spacer and key onto the engine output shaft and fit spider coupling onto keyway.





### Step 12c: Pump Casing and Coupling

Instal pump casing onto the engine and fasten with 4 x 13mm bolts supplied.



### Step 13: Engine Mounting

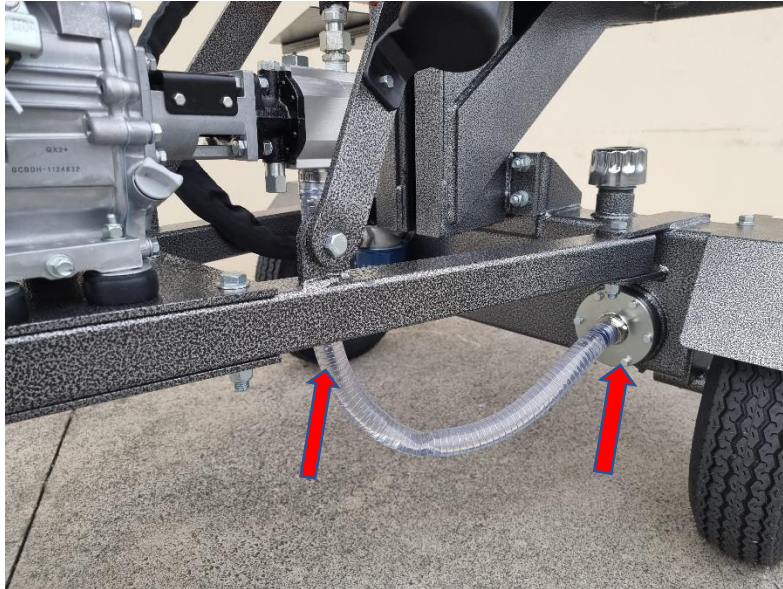
Align the antivibration mounts with the holes on the y-frame, set the engine on top of the antivibration mounts and washers. At this point the engine can be oiled and filled with fuel. The engine will use approximately, 600ml 10w30 oil and 91 Octane fuel. Insert and tighten the 4 x 13mm mounting bolts.

Note: Retighten these bolts after having run the engine for a few minutes.



### Step 14: Pump Hydraulic Hose

Fit and secure the supply hose to the pump. This is the clear reinforced hose approximately 600mm long. Ensure hose clamps are secure. (7mm hose clamps)



### Step 15a: Control Unit

Secure valve control Unit with only 1 x bolt on top of RH corner. This is done to allow easy access to fitment and tightening of all 4 hoses. Particularly the inner hose marked in the following photo.



### Step 15b: Connecting hoses to control unit

Connect Hose A on valve block to Hose B on Pump. Note that the hoses come attached to the control unit but may need to be loosened to ensure that the hoses can twist to fit the free end properly and for the hoses to lie in a neat position. Ensure all fittings are securely tightened. It is recommended to use thread tape on these connections to prevent oil leaks.



### Step 15c: Connecting hoses to control unit

Secure the valve Control Unit once the inside hose has been attached with 4 x Phillips M8 x 25mm bolts supplied.





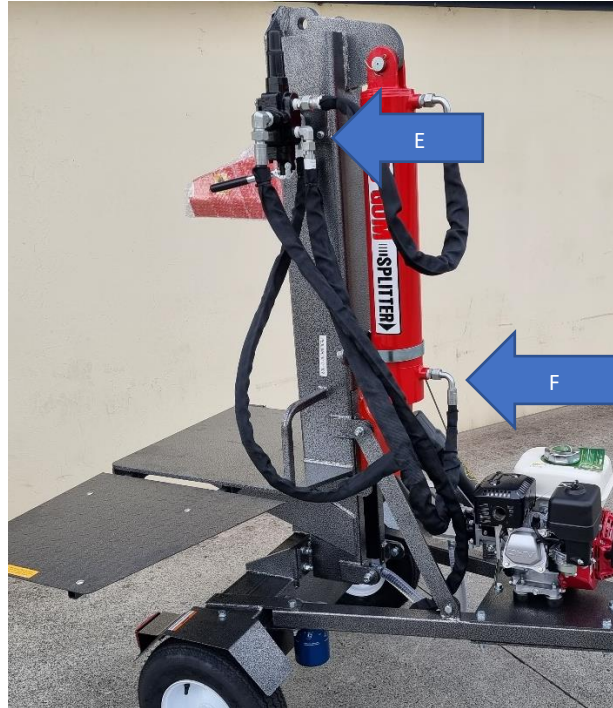
### Step 15d: Connecting hoses to control unit

Secure Hose C on valve block to Hose D on the cylinder.



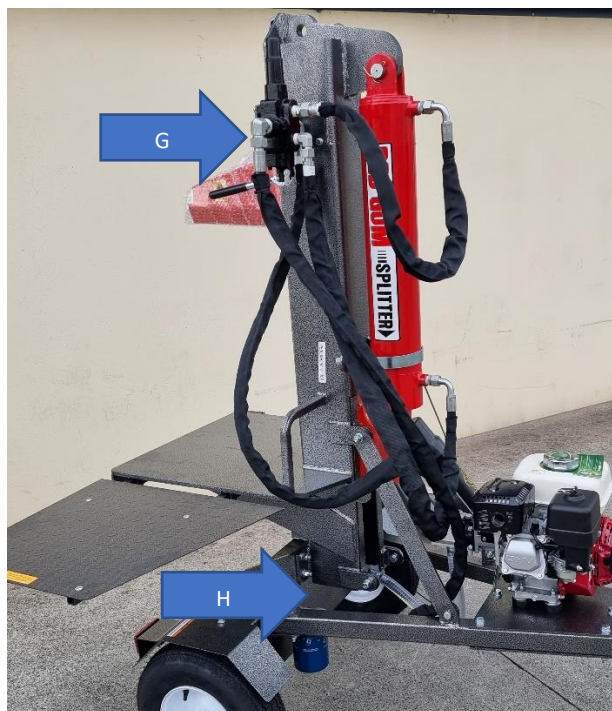
### Step 15e: Connecting hoses to control unit

Secure Hose E on valve block to Hose F on the cylinder.



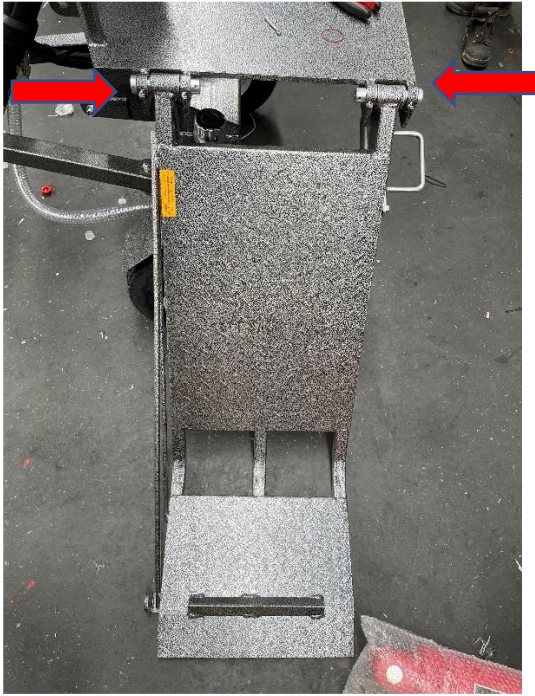
### Step 15f: Connecting hoses to control unit

Secure Hose G to Hose H on the Filter.



## Step 16: Lifting Plate

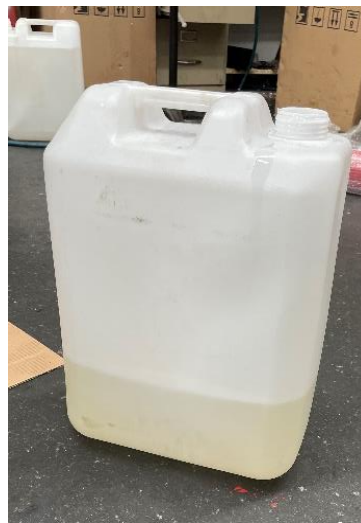
Install lifting plate and secure pins and counterweight cable. Fold the lifting plate up and secure with safety chain.





### Step 17a: Hydraulic Oil

Fill the splitter-lifter Hydraulic tank with 20l Hydraulic oil supplied, use approximately  $\frac{3}{4}$  of the container, the rest of the oil is used in Step 17b. A funnel is necessary to prevent spillage.



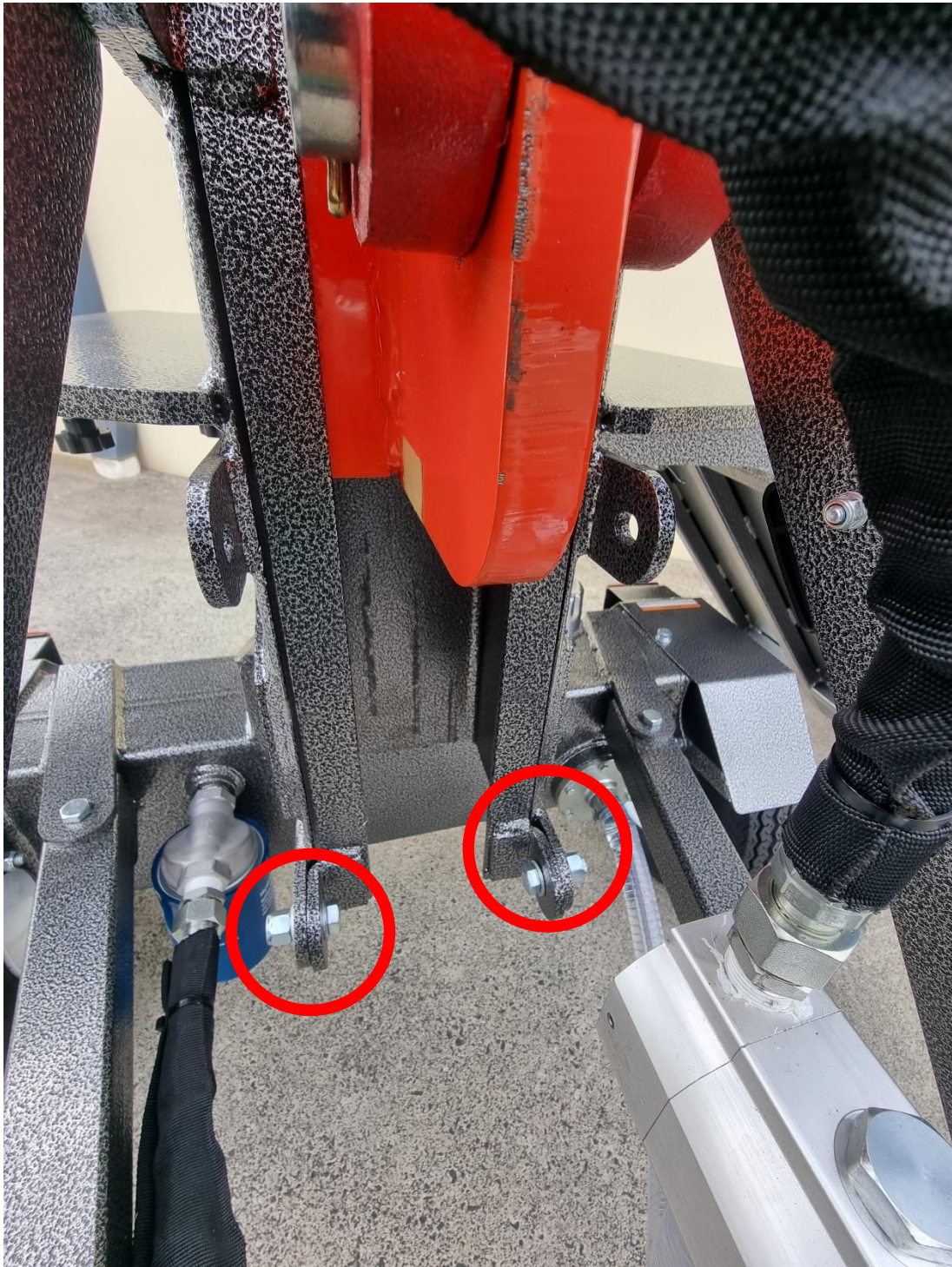
### Step 17b: Hydraulic Oil Fill

Start the engine and apply pressure to the control valve handle, now the oil can cycle into the cylinder and purge the system from air. Note: As air is expelled from the system hydraulic oil may splash out of the cap and leak onto the floor. It is recommended to use a non perforated cap for this stage.

Turn off the engine and fill the hydraulic tank with the remaining  $\frac{1}{4}$  tank of oil left in the drum.

### Step 18: Fasten Bolts (HDV unit only)

Fasten the 2 bolts on the back of the beam (70) on the cover plates (68). These will likely to be loose from the factory. The holes are slotted for adjustment. Make sure the axle assembly can move freely up and down before fastening these bolts. **Extra clearance is desirable as this will prevent axle binding, shuddering & wearing during operation.**





### Step 19: Check Level of work table.

This is a double check on step 4. Use a level to ensure the work table is level with the axle as in following photo. It may be necessary to loosen the 4 bolts at the base of the axle head and the 2 bolts on the support struts either side. Make adjustments with a suitable jack or assistant. Ensure work table is level and tighten all bolts.





## Step 20: Test Operate

1. Start the Engine and allow it to reach operating temperature.
2. Cycle the axe head several times and observe the following:
  - a. It moves freely with **no binding for the entire stroke**
  - b. There are no cables interfering with the movement
  - c. There are no unusual noises coming from the axe head movement
  - d. There are no oil leaks noted from the hoses and fittings
3. Shut the engine down and check for loose bolts and connections

## Step 20: Final Checks

Wipe the unit down with a cloth removing any oil marks.

Use touch up paint if there are any places where paint has been rubbed off

Ensure the hoses are positioned properly and use a cable tie to secure if required.

Complete Paperwork and deliver.

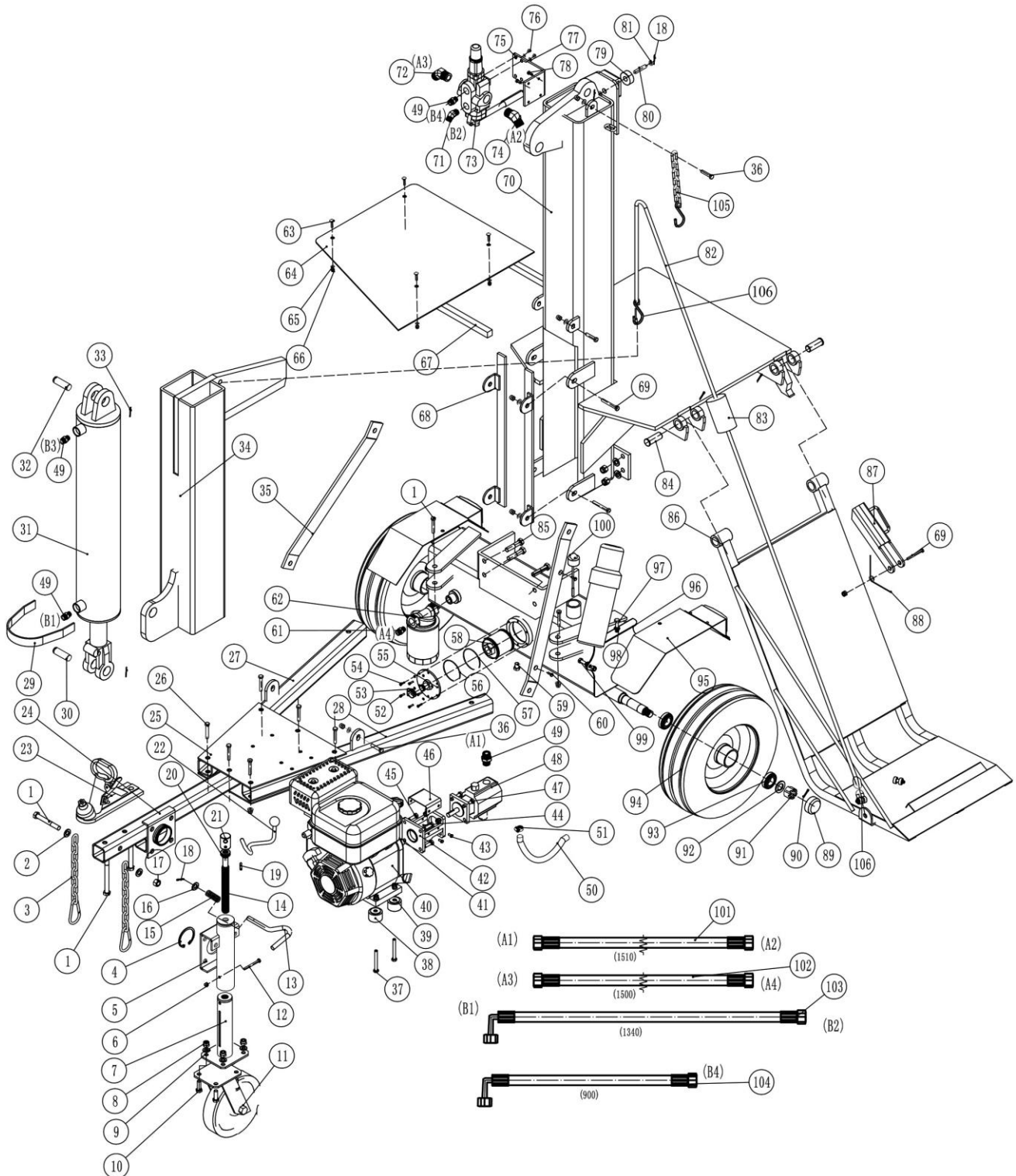
**RedGum 32000 SUPER HDV Vertical Lifter**  
**Illustrated Parts Listing (IPL)**

**RedGum** Products

**For more information contact your local RedGum Dealer**

**Visit: [www.RedGumProducts.com.au](http://www.RedGumProducts.com.au)**

# Parts Drawing & Parts List





Ref#	Drawing No.	Description	Qty
1	GB/T5782-2000	Hex Bolt M12×90 / 8.8	3
2	GB/T95-2002	Flat Washer Φ12	21
3	WLFL-01	Chain Φ6	2
4	GB/T894.2-1986	Axial Spring Collar Φ62 65Mn	1
5	WLFL-02	Outer Pipe	1
6	GB/T 889.1-2000	Hex Lock Nut M6	3
7	WLFL-03	Inner Pipe	1
8	GB/T889.1-2000	Hex Lock Nut M10	8
9	GB/T95-2002	Flat Washer Φ10	10
10	GB/T5783-2000	Hex Bolt M10×30	4
11	WLFL-04	Jockey Wheel	1
12	GB/T 5782-2000	Hex Bolt M6×60	1
13	WLFL-05	Safety Pin	1
14	WLFL-06	Lift Screw	1
15	WLFL-07	Pressing Spring	1
16	GB/T95-2002	Flat Washer 13	1
17	GB/T889.1-2000	Hex Lock Nut M12	20
18	GB/T91-2000	Cotter Pin d 3.2×25	3
19	GB/T879.2-2000	Spring Column Pin d5×30	1
20	GB/T 301-1995	Thrust Ball Bearing 51102	1
21	WLFL-08	Handle Bushing	1
22	WLFL-09	Handle	1
23	WLFL-10	Coupler	1
24	WLFL-11	Tow bar	1
25	WLFL-12	Splint	2
26	GB/T5782-2000	Hex Bolt M12×80 / 8.8	6
27	WLFL-13	Pulling Rod	1
28	WLFL-14	Pulling Rod	1
29	WLFL-15	Cylinder Guard	1
30	WLFL-16	Pin Shaft	1
31	WLFL-17	Cylinder	1
32	WLFL-18	Pin Shaft	1
33	GB/T91-2000	Cotter Pin d 5×50	2
34	WLFL-19	Wedge	1
35	WLFL-20	Brace	1
36	GB/T5783-2000	Hex Bolt M12×35	6

Ref#	Drawing No.	Description	Qty
37	GB/T5782-2000	Hex Bolt M8×120 / 8.8	4
38	WLFL-21	Shock Pad Φ4025	4
39	GB/T5287-1985	Big Flat Washer Φ8 Q215	4
40	WLFL-22	Engine 6.5HP	1
41	WLFL-23	Engine Spacer	1
42	WLFL-24	Pump Holder	1
43	GB/T5783-2000	Hex Bolt M5×10	4
44	WLFL-25	Pump Flex Coupling	1
45		Engine Bolt	4
46	WLFL-26	Connector Cover	1
47	GB/T5783-2000	Hex Bolt M8×30	4
48	WLFL-27	Gear Pump	1
49	WLFL-28	Pump Connector	4
50	WLFL-29	Oil Outlet Hose	1
51	WLFL-30	Pipe Clamp	2
52	GB/T5783-2000	Hex Bolt M6×20	6
53	GB/T95-2002	Flat Washer Φ6	8
54	GB/T 93-1987	Spring Washer	6
55	WLFL-33	Flange	1
56	GB/T 3452.1-2005	O Ring D80×2.4	1
57	GB/T 3452.1-2005	O Ring D75×2.4	1
58	WLFL-34	Inner Filter	1
59	WLFL-35	Drain Plug	1
60	GB/T5783-2000	Hex Bolt M6×25	2
61	WLFL-36	Oil Return Hose Straight Connector	1
62	WLFL-37	External Filter	1
63	GB/T 823-85	Screw M8×35	4
64	WLFL-38	Wood Tray	1
65	GB/T95-2002	Flat Washer Φ8	12
66	GB/T 889.1-2000	Hex Lock Nut M8	8
67	WLFL-39	Wood Tray Support	2
68	WLFL-40	Cover Plate	2
69	GB/T5782-2000	Hex Bolt M12×60 / 8.8	3
70	WLFL-41	Beam	1
71	WLFL-42	Valve Right Angle Connector	1
72	WLFL-43	Oil Return Hose Right Angle Connector	1

Ref#	Drawing No.	Description	Qty
73	WLFL-44	Valve	1
74	WLFL-45	Oil Inlet Hose Right Angle Connector	1
75	WLFL-46	Fixed Plate	1
76	GB/T70.2-2000	Screw M8×15	4
77	GB/T 93-1987	Spring Washer 65Mn	8
78	GB/T5783-2000	Hex Bolt M8×20	4
79	WLFL-47	Pulley	1
80	WLFL-48	Shaft	1
81	GB/T95-2002	Flat Washer Φ14	2
82	WLFL-49	Wire	1
83	WLFL-50	Counterweight	1
84	WLFL-51	Shaft	2
85	GB/T5782-2000	Hex Bolt M12×45 / 8.8	4
86	WLFL-52	Lifting Plate	1
87	WLFL-53	Handle	1
88	WLFL-54	Torsion Spring	1
89	WLFL-55	Dust Cover	1
90	GB/T 91-2000	Cotter Pin d4×40	4
91	GB/T 6181-1986	Slotted Nut M20×1.5	2
92	GB/T95-2002	Flat Washer Φ20	2
93		Bearing	4
94		Tire	2
95	WLFL-56	Protection Fender	2
96	WLFL-57	Oil Tank	1
97	GB/T5783-2000	Hex Bolt M10×20	2
98	GB/T 93-1987	Spring Washer 10	2
99	GB/T5782-2000	Hex Bolt M10×25 / 8.8	4
100	WLFL-58	Filler Plug	1
101	WLFL-59	Oil Inlet Hose	1
102	WLFL-60	Oil Return Hose	1
103	WLFL-61	Cylinder Hose B2	1
104	WLFL-62	Cylinder Hose B4	1
105		Transport Chain & Hook	1
106		Carabiner	1



