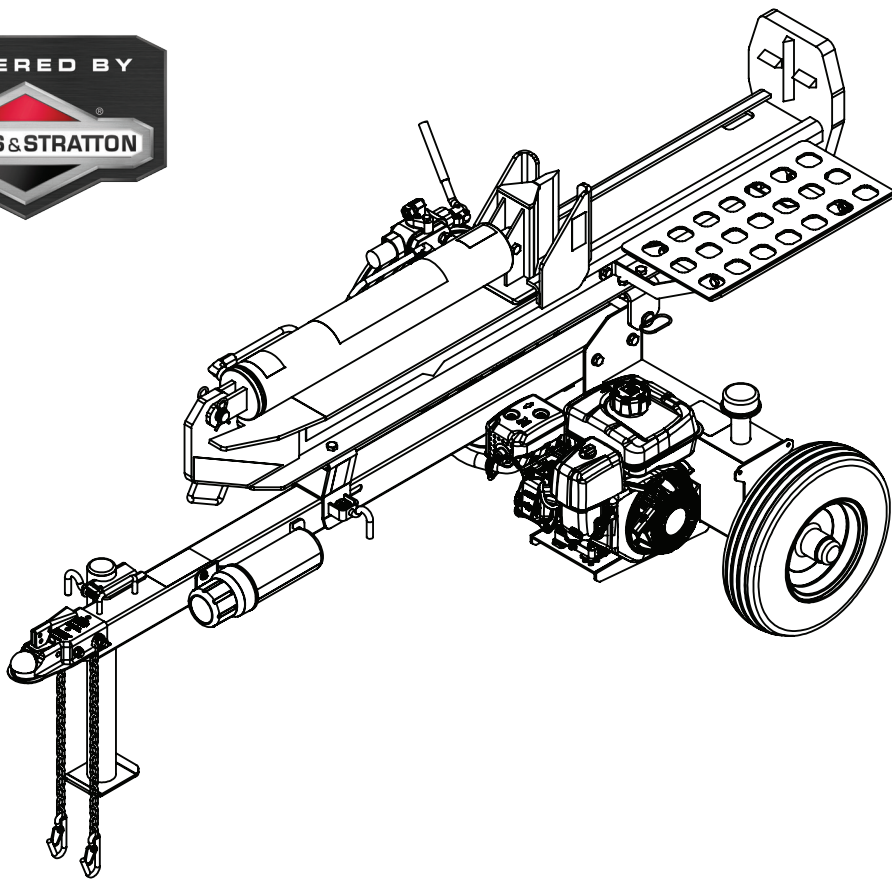


BW MACHINERY®

30 TON, 35 TON & 40 TON VERTICAL/HORIZONTAL LOG SPLITTER



Spare Parts

Model #s BWMLS30 (30 Ton), BWMLS35 (35 Ton), BWMLS40 (40 Ton)

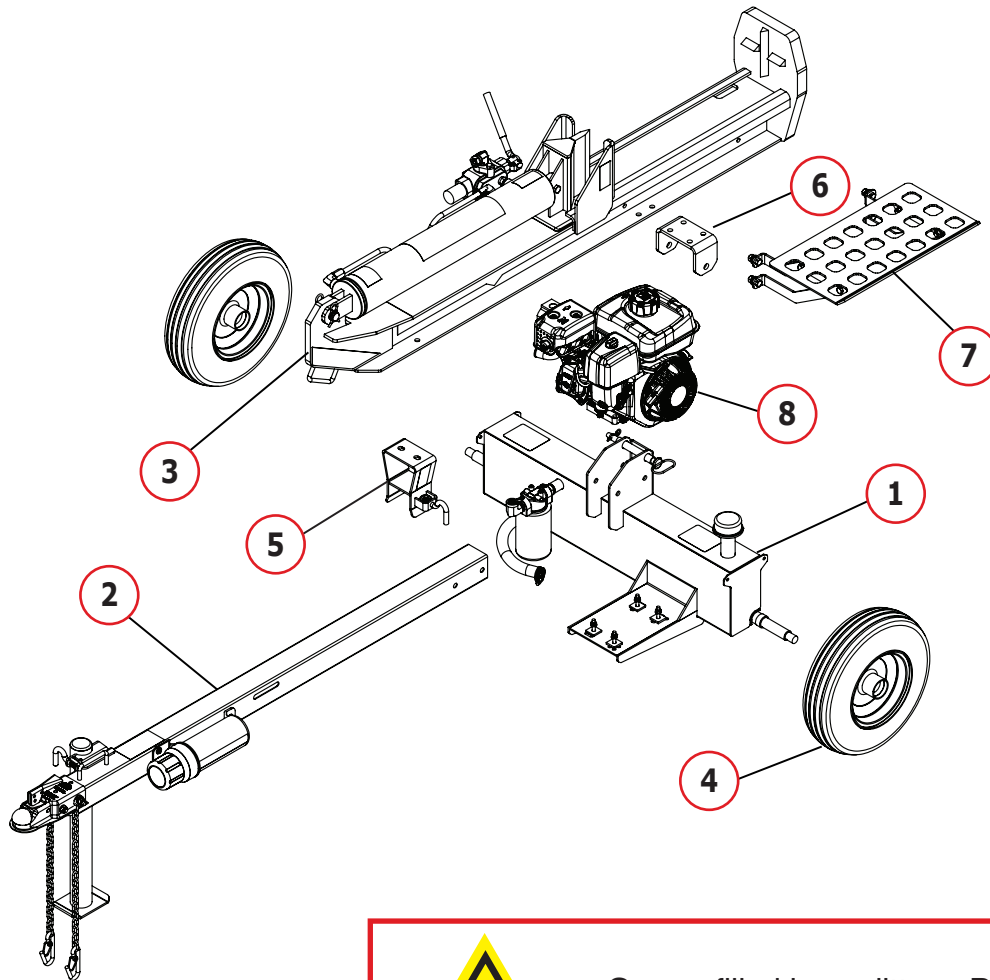


This safety symbol identifies important safety measures throughout this manual. Failure to follow this information may result in serious injury or death.

BW MACHINERY® Assembly Overview

TOOLS NEEDED FOR ASSEMBLY:

■ Hammer ■ Needle nose pliers ■ Box cutters ■ #2 Phillips screw driver ■ 6mm hex key wrench
 ■ 8mm driver ■ 13mm wrench / socket wrench ■ 17mm wrench / socket wrench ■ 19mm wrench / socket wrench
 ■ 22mm & 24mm wrenches / crescent wrench ■ 28mm socket wrench



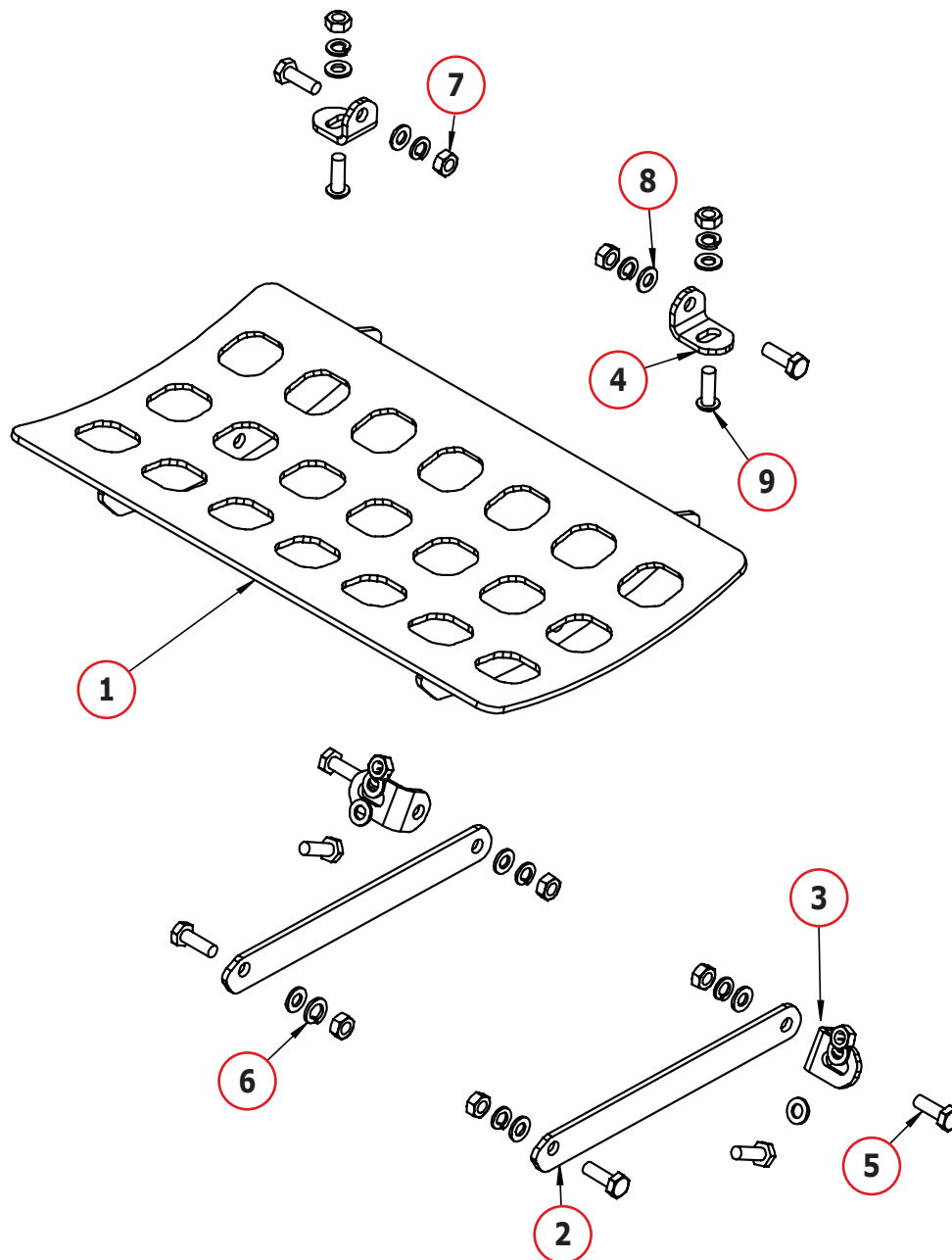
CAUTION

On pre-filled log splitters, **DO NOT REMOVE** the end caps from the hydraulic hoses until Step 7.

No.	Part No.	Description	Qty.
1	BWMLS101	Tank assembly (30 ton)	1
	BWMLS192	Tank assembly (35/40 ton)	
2	BWMLS102	Tongue & stand assembly (30 ton)	1
	BWMLS193	Tongue & stand assembly (35/40 ton)	
3	BWMLS103	Beam & cylinder assembly (30 ton)	1
	BWMLS194	Beam & cylinder assembly (35/40 ton)	
4	BWMLS104	Wheel/tyre assembly, 4.80 x 8"	2

No.	Part No.	Description	Qty.
5	BWMLS105	Beam lock bracket	1
6	BWMLS106	Beam pivot bracket	1
7	BWMLS107	Log catcher assembly	1
8		Briggs & Stratton 6.5hp (30 ton)	1
		Briggs & Stratton 10hp (35 ton)	
		Briggs & Stratton 13.5hp (40 ton)	

Log Catcher Assembly **BW**MACHINERY®



No.	Part No.	Description	Qty.
1	BWMLS108	Log catcher grate	1
2	BWMLS109	Log catcher support plate	2
3	BWMLS110	Log catcher mount, lower	2
4	BWMLS111	Log catcher mount, upper	2
5	BWMLS112	Hex bolt, M10 x 30mm	8

No.	Part No.	Description	Qty.
6	BWMLS113	Lock washer, M10	10
7	BWMLS114	Hex nut, M10	10
8	BWMLS115	Flat washer, M10	12
9	BWMLS116	Button head screw, M10 x 30mm	2

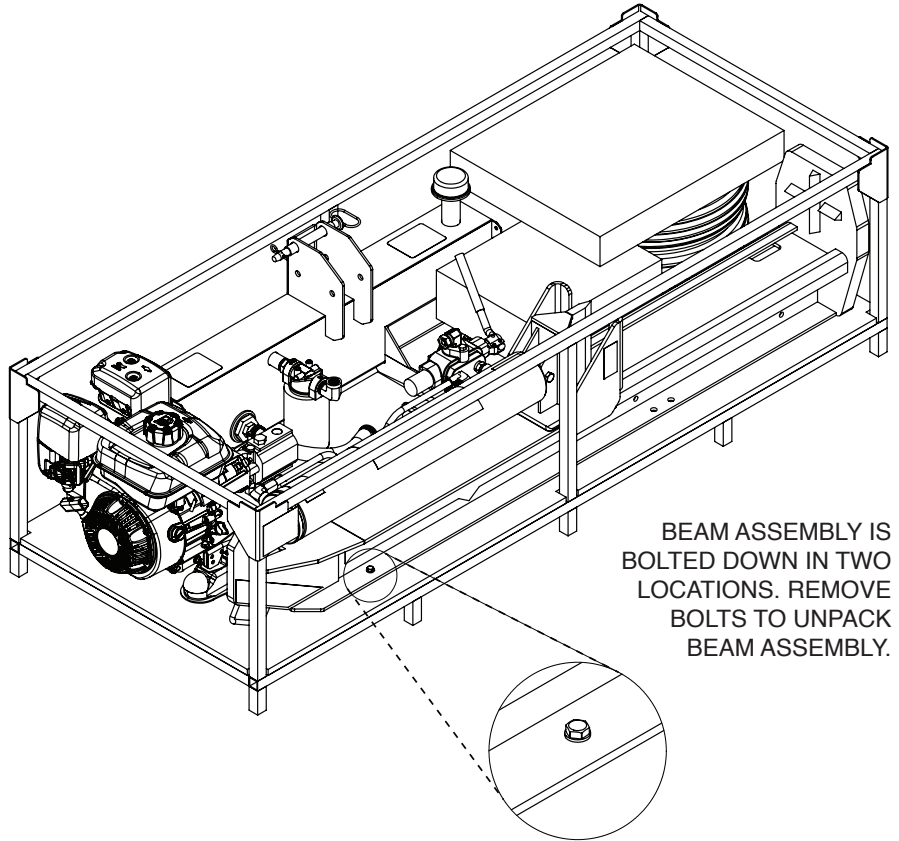
BW MACHINERY® 1 - Unpacking the Container

Step 1.1

Remove plastic wrap on crate.

Step 1.2

Remove restraining bolts from the beam. Use a 13mm wrench / socket wrench to remove the two hex bolts that are securing the beam to the crate bottom (right). Please note that the two hex bolts are located diagonally opposed to each other.



Step 1.3

Remove beam and cylinder assembly from crate with assistance of a helper. Lift beam and cylinder assembly to its vertical position standing upright on the beam's footplate.

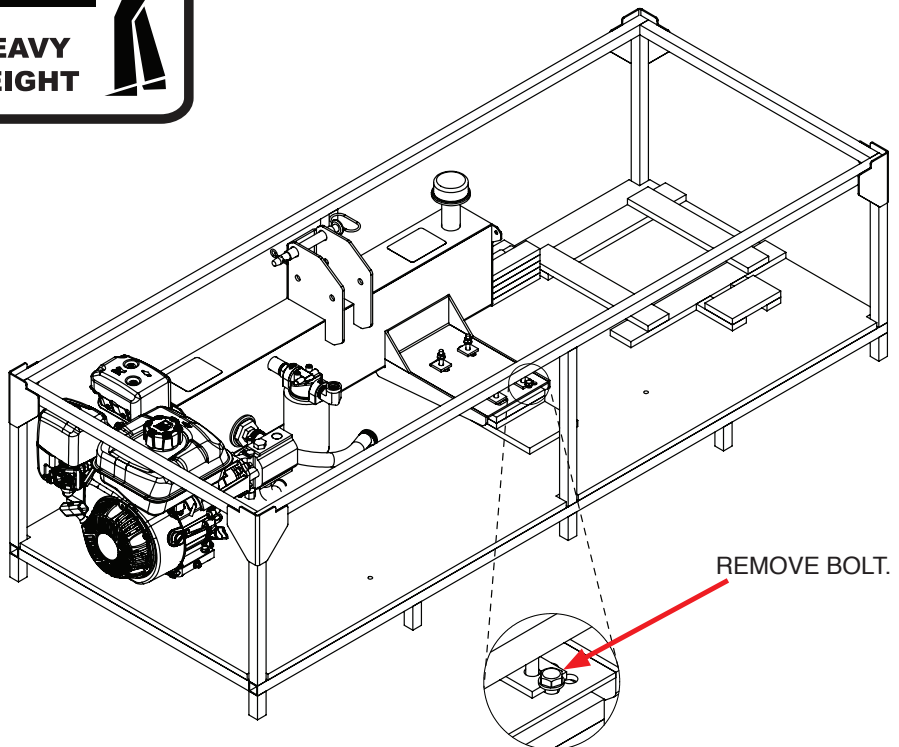


USE CAUTION
WHEN LIFTING -
HEAVY WEIGHT!



Step 1.4

Use a 13mm wrench / socket wrench to remove the single hex bolt that is securing the tank assembly to the crate bottom (right).



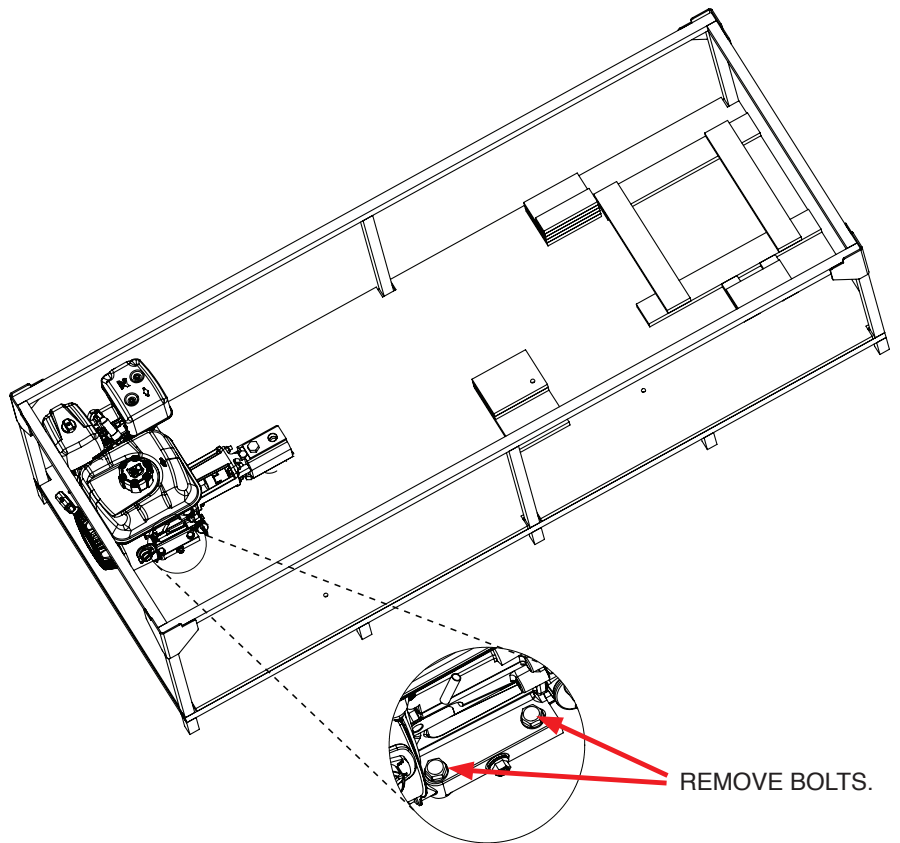
1 - Unpacking the Container **BW** MACHINERY®

Step 1.5

Use a 13mm wrench / socket wrench to remove the two hex bolts that secure the Briggs & Stratton engine to the crate bottom (right).

Step 1.6

Remove tank and engine assembly from crate.



BW MACHINERY® 2 - Tank and Engine Assembly

Step 2.1

Remove **engine bolts (5)** from tank.

Step 2.2

Place **engine (2)** on tank.

Step 2.3

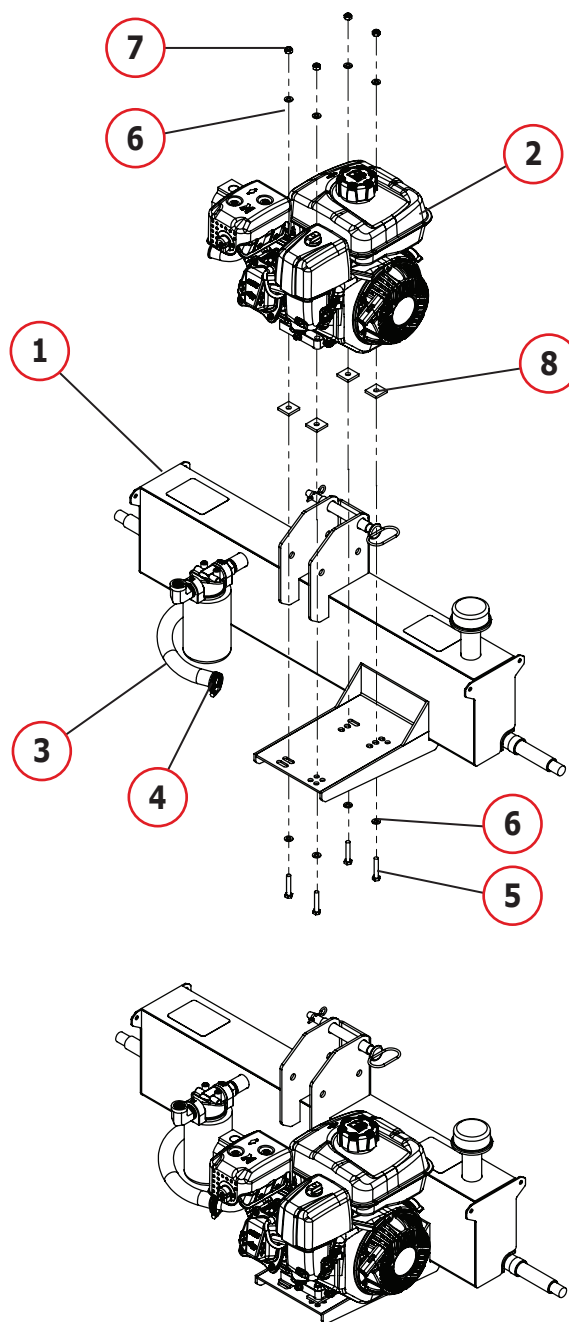
Secure **engine on tank (1)** in 4 places with hex bolt **(5)**, flat washer **(6)** and locking hex nut **(7)**.

Step 2.4

Attach **suction line tube (3)** to pump.

Step 2.5

Fasten the **suction line tube** to the pump assembly with **hose clamp (4)**.



No.	Part No.	Description	Qty.
1	BWMLS101	Tank assembly (30 ton)	1
	BWMLS192	Tank assembly (35/40 ton)	1
2		Briggs & Stratton 6.5hp (30 ton) Briggs & Stratton 10hp (35 ton) Briggs & Stratton 13.5hp (40 ton)	1
3	BWMLS117	Suction line tube	1
4	BWMLS118	Hose clamp, 15/16" to 1-1/4"	2

No.	Part No.	Description	Qty.
5	BWMLS119	Hex bolt, M8 x 45, G8.8	4
6	BWMLS120	Flat washer, M8	8
7	BWMLS121	Locking hex nut, M8 x 1.25, G8.8	4
8	BWMLS122	Rubber engine damper	4

3 - Tank and Wheel Assembly **BW** MACHINERY®

Step 3.1

Remove disposable spindle covers and wheel bearing covers.

Step 3.2

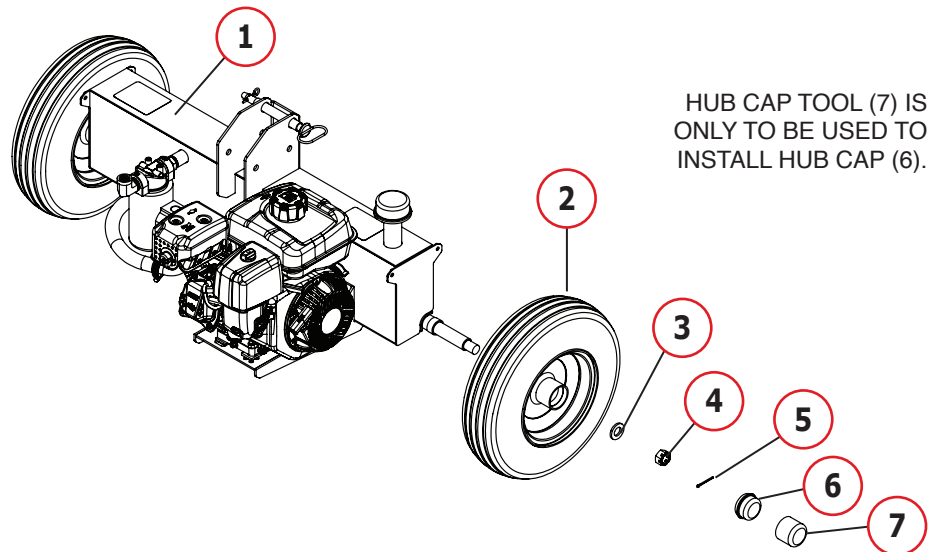
Slide **wheel/tyre assembly (2)** on to the spindle with valve stem of tyre facing outwards.

Step 3.3

Install the **flat washer (3)** onto the spindle.

Step 3.4

Thread the slotted **castle nut (4)** onto the spindle. The slotted nut should be attached with a 28mm socket tight enough to eliminate the free-play of the wheel assembly and not tighter. Make sure the wheels can freely rotate. The castle nut needs to be oriented to allow for the installation of the **cotter pin (5)**.

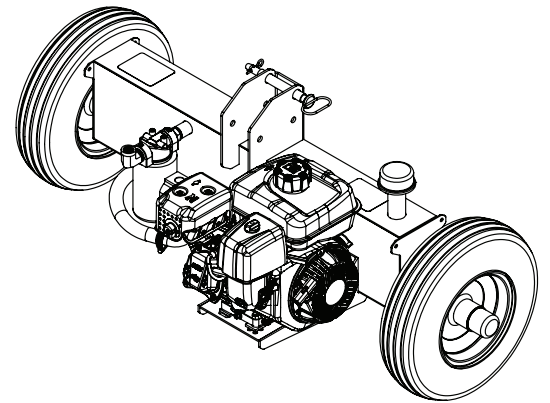


Step 3.5

Install the **cotter pin** through the **castle nut** and spindle. Bend pin ends around spindle to secure its position.

Step 3.6

Install the **hub cap (6)** using the **hub cap tool (7)**. Gently tap on the hub cap tool with a hammer to drive the hub cap into place.



Step 3.7

Repeat Steps 1 - 6 to install the second wheel.

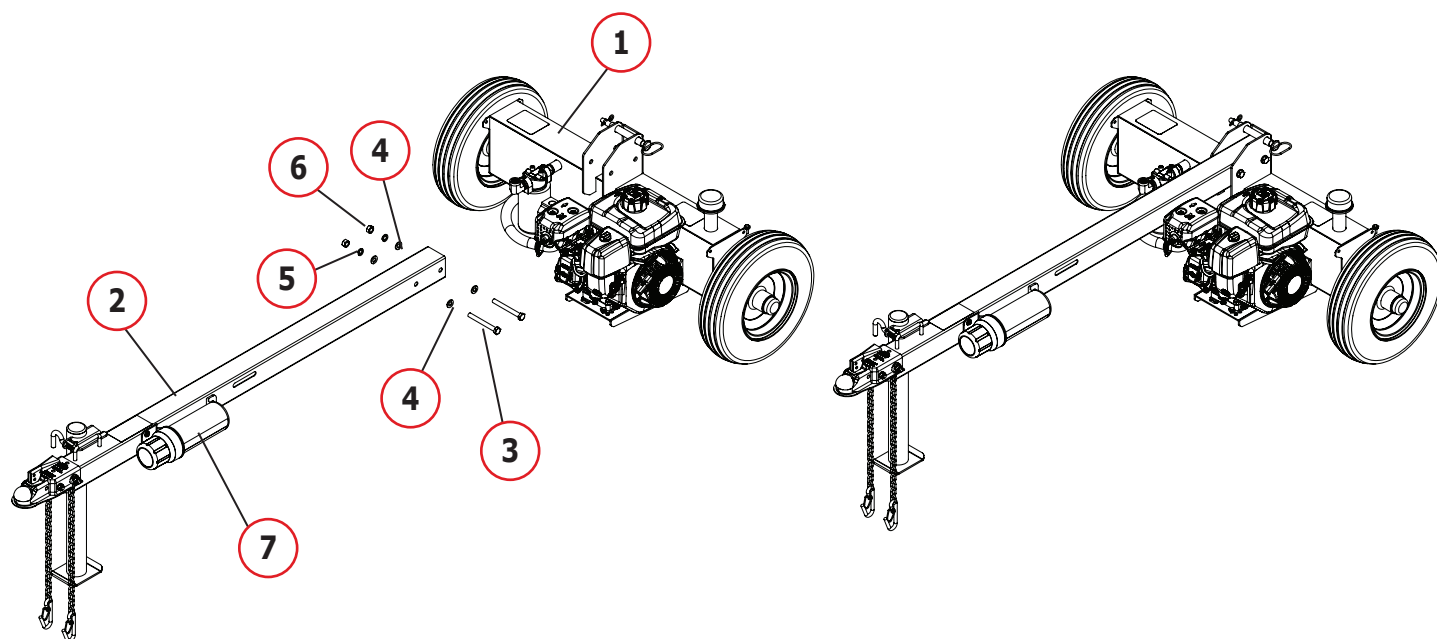
No.	Part No.	Description	Qty.
1	BWMLS128	Tank & engine assembly (30 ton)	1
	BWMLS195	Tank & engine assembly (35/40 ton)	1
2	BWMLS104	Wheel/tyre assembly, 4.80 x 8"	2
3	BWMLS123	Flat washer, 3/4"	2
4	BWMLS124	Castle nut, 3/16" 16, clear zinc	2

No.	Part No.	Description	Qty.
5	BWMLS125	Cotter pin, 1/8" x 1-1/2"	2
6	BWMLS126	Hub cap	2
7	BWMLS127	Hub cap tool	1

BW MACHINERY® 4 - Tank and Tongue Assembly

Step 4.1

Attach the **tongue and stand assembly (2)** to the tank and engine assembly **(1)** with hex bolt **(3)**, flat washer **(4)**, lock washer **(5)** and hex nut **(6)** in two places. Tighten securely using 19mm socket wrench.



No.	Part No.	Description	Qty.
1	BWMLS128	Tank & engine assembly (30 ton)	1
	BWMLS195	Tank & engine assembly (35/40 ton)	1
2	BWMLS102	Tongue & stand assembly (30 ton)	1
	BWMLS193	Tongue & stand assembly (35/40 ton)	1
3	BWMLS129	Hex bolt M12 x 1.75 x 110mm, G8.8	2
4	BWMLS130	Flat washer, M12	4

No.	Part No.	Description	Qty.
5	BWMLS131	Lock washer, M12	2
6	BWMLS132	Hex nut, M12 x 1.75, G8.8	2
7	BWMLS133	Manual canister	1

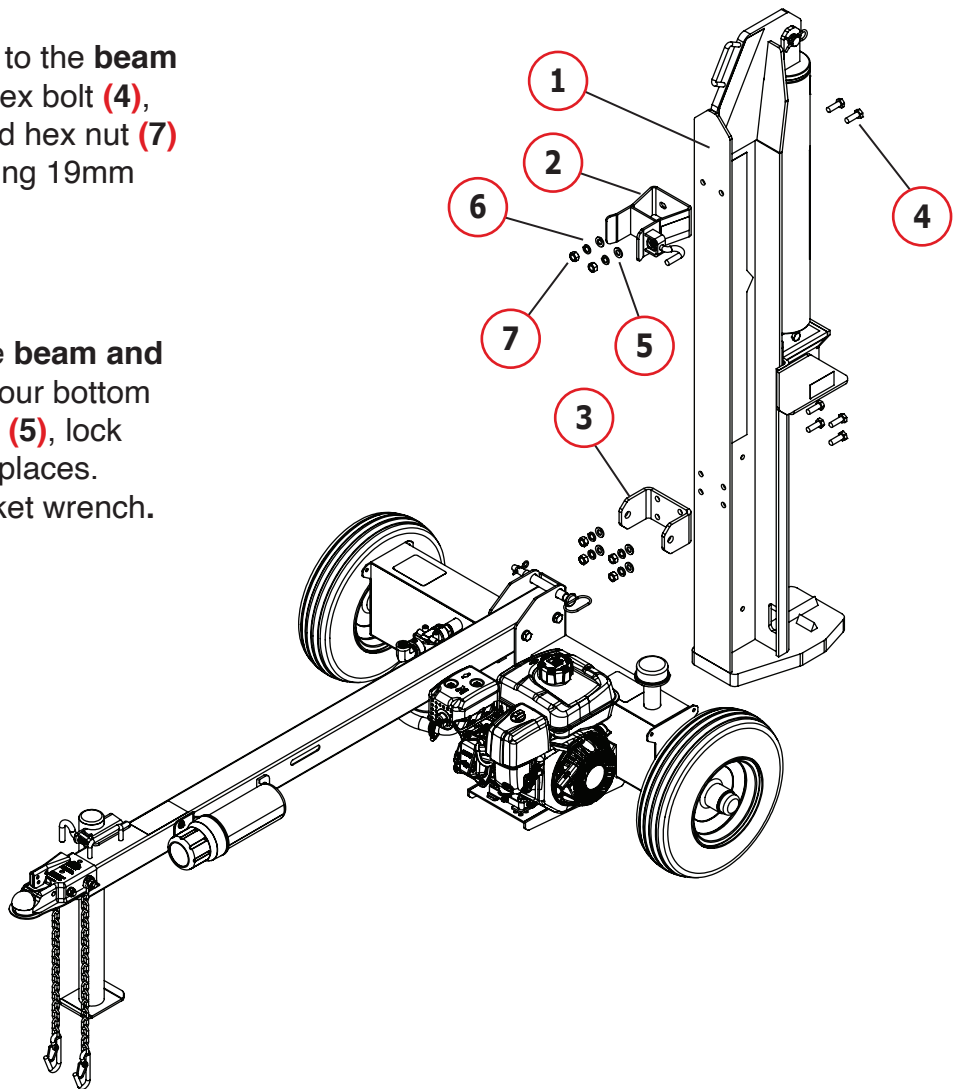
5 - Beam Bracket Assembly **BW**MACHINERY®

Step 5.1

Attach the **beam lock bracket (2)** to the **beam and cylinder assembly (1)** with hex bolt **(4)**, flat washer **(5)**, lock washer **(6)** and hex nut **(7)** in two places. Tighten securely using 19mm socket wrench.

Step 5.2

Attach the **pivot bracket (3)** to the **beam and cylinder assembly (1)** using the four bottom holes with hex bolt **(4)**, flat washer **(5)**, lock washer **(6)** and hex nut **(7)** in four places. Tighten securely using 19mm socket wrench.



No.	Part No.	Description	Qty.
1	BWMLS103	Beam & cylinder assembly (30 ton)	1
	BWMLS194	Beam & cylinder assembly (35/40 ton)	1
2	BWMLS134	Beam lock bracket	1
3	BWMLS135	Beam pivot bracket	1
4	BWMLS129	Hex bolt, M12 x 1.75 x 35mm, G8.8	6

No.	Part No.	Description	Qty.
5	BWMLS130	Flat washer, M12	6
6	BWMLS131	Lock washer, M12	6
7	BWMLS132	Hex nut, M12 x 1.75, G8.8	6

BW MACHINERY® 6 - Beam and Tank Assembly

Step 6.1

Rotate the jack stand attached to the side of the tongue assembly downwards into position by releasing the pin and then securing the release pin.

Step 6.2

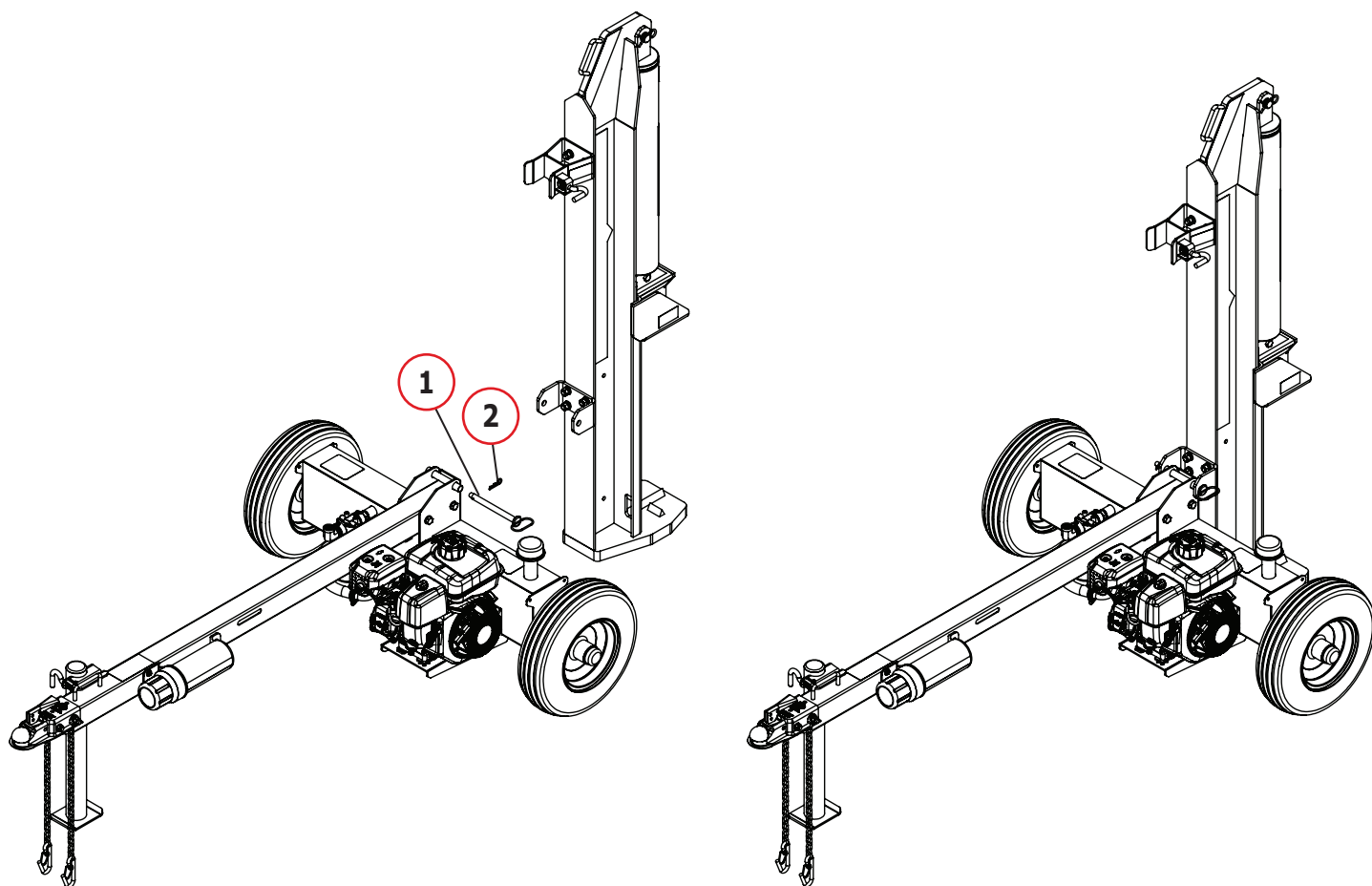
Remove the **retaining clip (2)** and **hitch pin (1)** from the assembled unit (below).

Step 6.3

Slowly back the assembled unit up to the beam and cylinder assembly. Align the tongue bracket of the assembled unit to the pivot bracket of the beam assembly.

Step 6.4

Once the brackets are aligned, install the **hitch pin (1)** through the brackets then install the **retaining clip (2)** into the hitch pin.



No.	Part No.	Description	Qty.
1	BWMLS136	Hitch pin 5/8" x 6-1/4"	1

No.	Part No.	Description	Qty.
2	BWMLS137	R-clip, 1/8". Fits 1/2" to 3/4"	1

7 - Hydraulic Line Connection **BW**MACHINERY®

Step 7.1

Hold **hydraulic hose (1)** and **(2)** above the level of the hydraulic tank to prevent fluid leakage and remove the end caps.

Step 7.2

Apply Teflon tape or pipe sealant on to the hose fitting threads. Install the ends of the two **hydraulic hoses (1)** and **(2)** to the **valve** (as shown in detail drawing below). Securely tighten the fitting connections using 22mm and 24mm wrench.

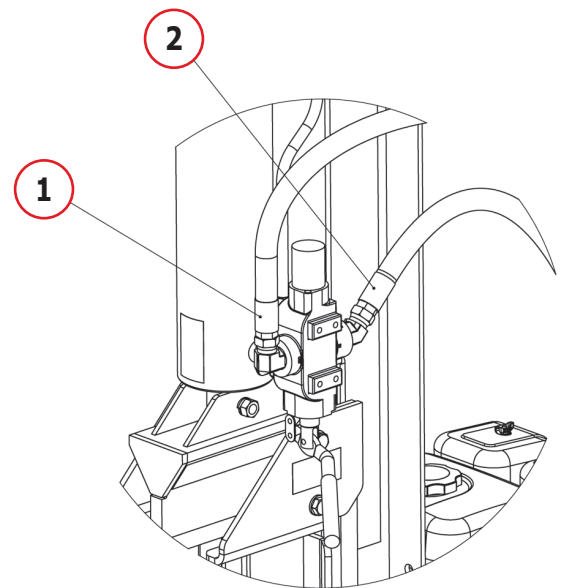
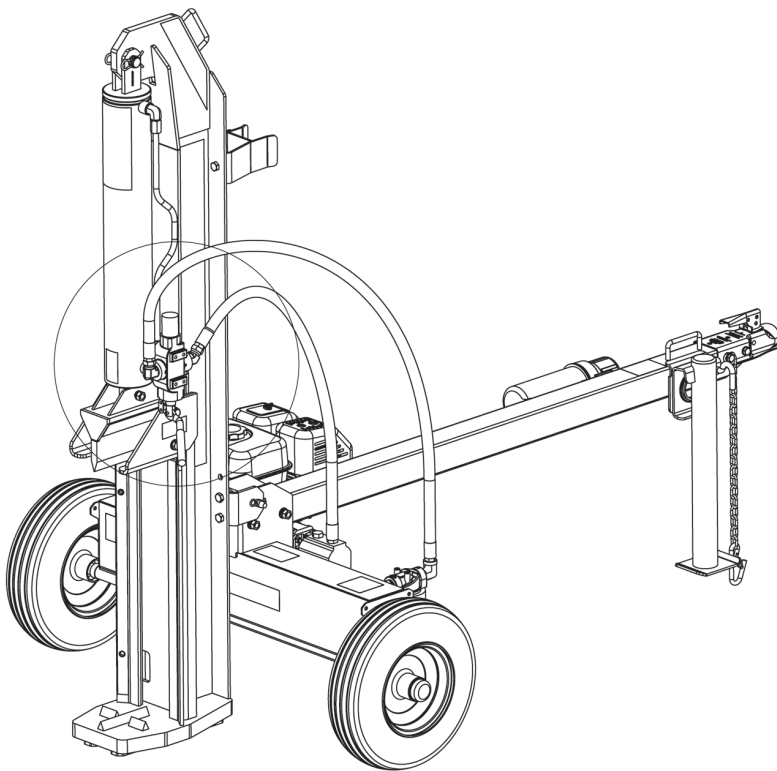
Step 7.3

Remove tank cap and install the vent cap.



CAUTION

On pre-filled log splitters, hold hoses above the level of the hydraulic tank before removing end caps.



No.	Part No.	Description	Qty.
1	BWMLS138	Hydraulic hose, 1/2" x 56"	1

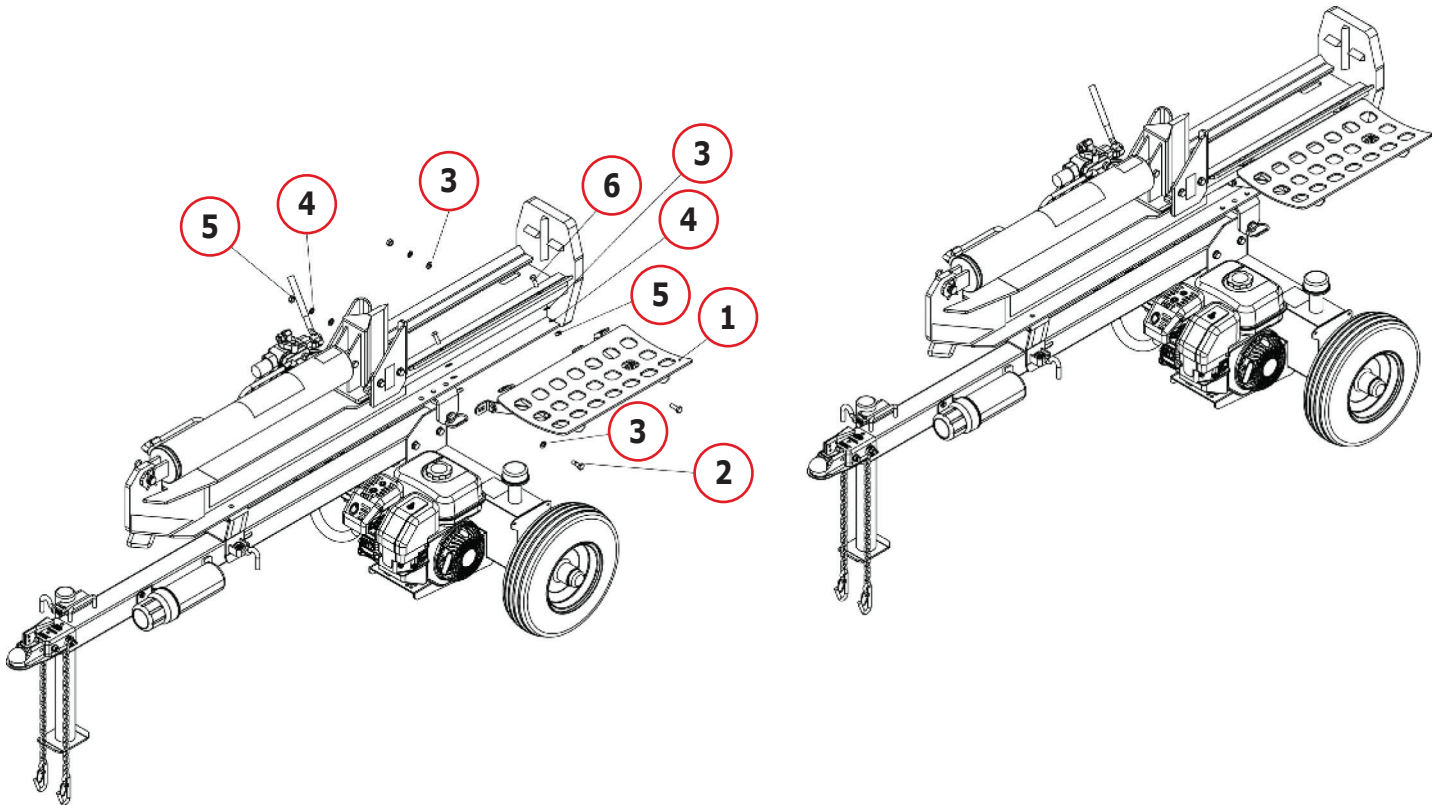
No.	Part No.	Description	Qty.
2	BWMLS139	Hydraulic hose, 1/2" x 38", high pressure	1

Step 8.1

Rotate beam and cylinder assembly down from upright position and lock in place with the release pin.

Step 8.2

Install the **log catcher assembly (1)** with hex bolts **(2)**, flat washer **(3)**, lock washer **(4)**, hex nut **(5)** and button screw **(6)** in two places. Tighten hex nuts securely with a 17mm socket wrench and tighten button screws with 6mm hex key wrench.



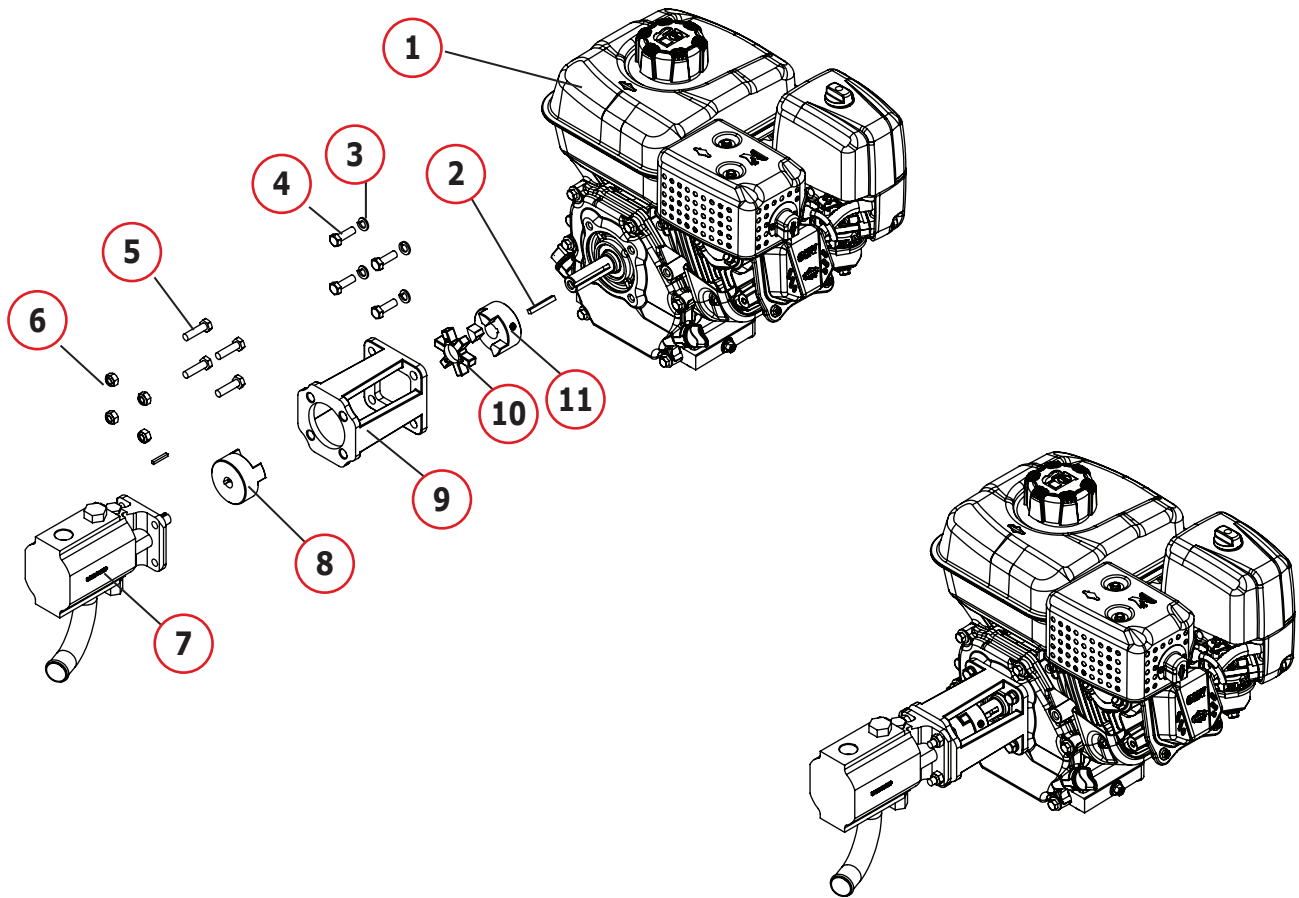
No.	Part No.	Description	Qty.
1	BWMLS107	Log catcher assembly	1
2	BWMLS112	Hex bolt M10 x 1.5 x 30mm, G8.8	2
3	BWMLS115	Flat washer, M10	4

No.	Part No.	Description	Qty.
4	BWMLS113	Lock washer, M10	4
5	BWMLS114	Hex nut, M10 x 1.5, G8.8	4
6	BWMLS140	Button screw, M10 x 1.5 x 30mm, G8.8	2

9 - Final Installation Check

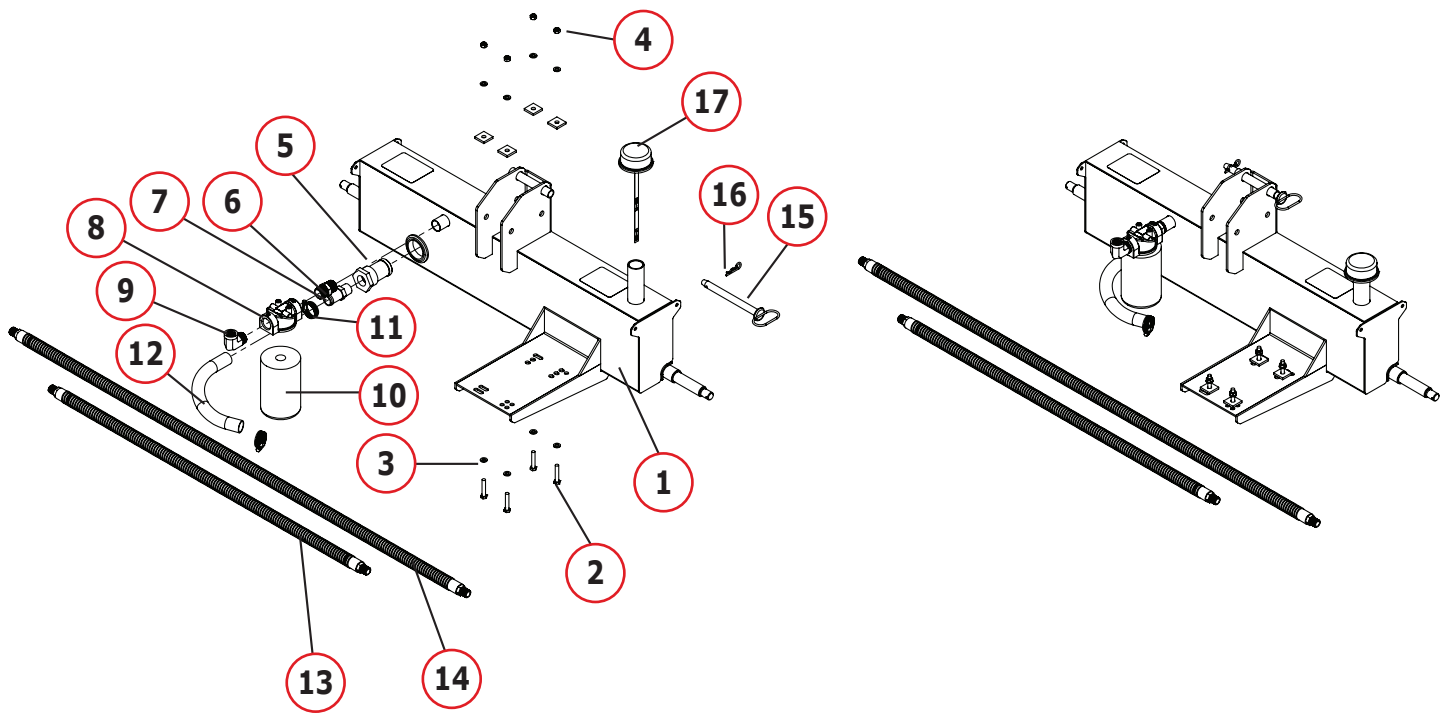
Step 9.1

Check tightness of all fittings, nuts and bolts prior to filling the log splitter with fluids.



No.	Part No.	Description	Qty.
1		Briggs & Stratton 6.5hp (30 ton) Briggs & Stratton 10hp (35 ton) Briggs & Stratton 13.5hp (40 ton)	1
2	BWMLS141	Bar, key stock SQ 3/16" x 1-1/2"	1
3	BWMLS142	Lock washer, M8	4
4	BWMLS143	Hex bolt, M8 x 10 x 25mm, G8.8	4
5	BWMLS144	Hex bolt, M8 x 1.25 x 30mm, G8.8	4
6	BWMLS121	Locking hex nut, M8 x 1.25, G8.8	4

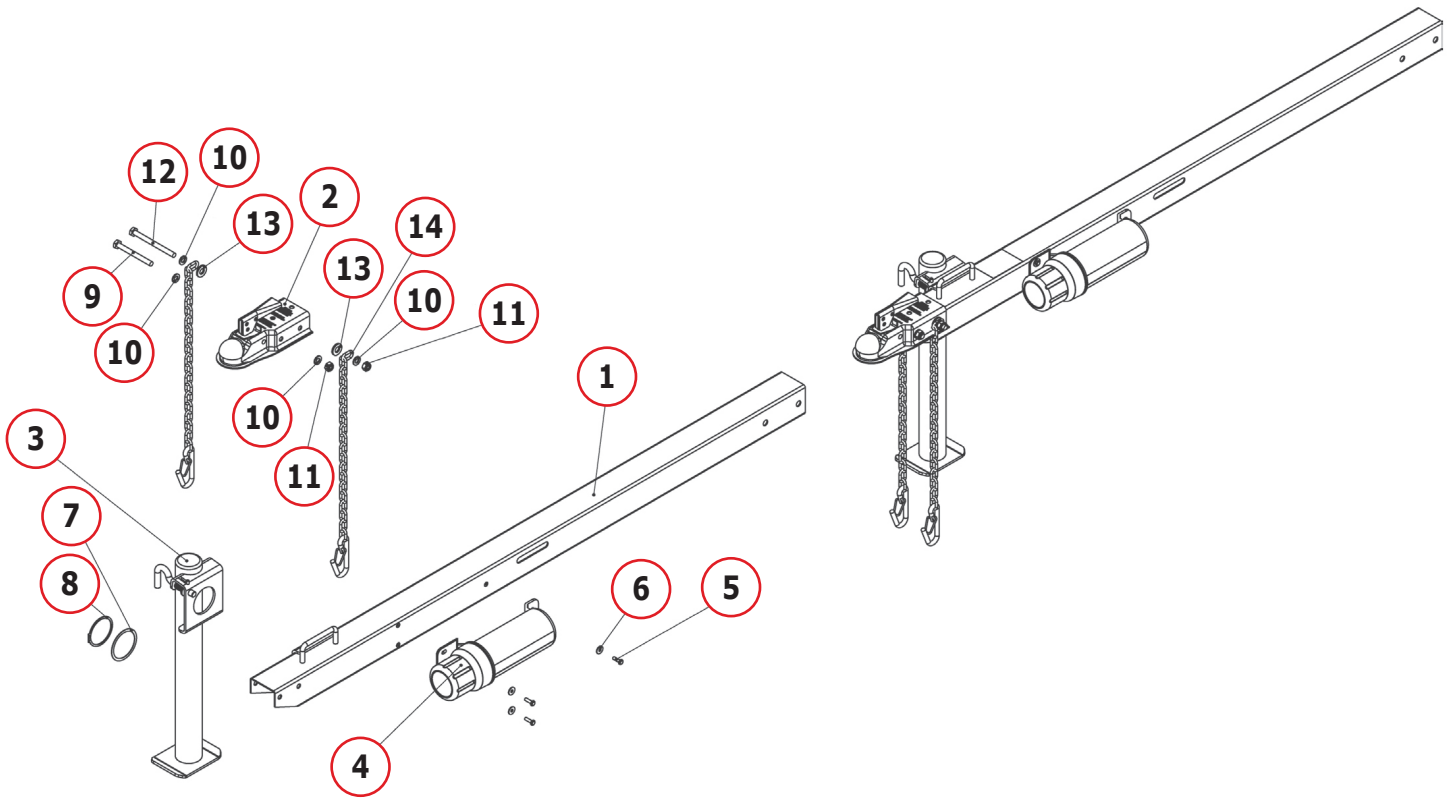
No.	Part No.	Description	Qty.
7	BWMLS145 BWMLS196	Pump, 13 GPM (30 ton) Pump, 17.5 GPM (35/40 ton)	1
8	BWMLS146	Jaw coupler assembly, 1/2" bore, L090	1
9	BWMLS147	Pump mount, 92mm BC	1
10	BWMLS148	Jaw spider coupler, L090	1
11	BWMLS149	Jaw coupler assembly, 3/4" bore	1



No.	Part No.	Description	Qty.
1	BWMLS150 BWMLS197	Tank with decals (30 ton) Tank with decals (35/40 ton)	1
2	BWMLS119	Hex bolt, M8 x 1.25 x 45mm, G8.8	4
3	BWMLS120	Flat washer, M8	8
4	BWMLS121	Locking hex nut, M8 x 1.25, G8.8	4
5	BWMLS151	Suction Filter	1
6	BWMLS152	Fitting, 3/4 NPT to 1" tube	1
7	BWMLS153	Fitting, M 3/4 NPT, M 3/4 NPT	1
8	BWMLS154	Filter base, 3/4 NPT, 1-12 UNF	1
9	BWMLS155	Elbow, M 3/4 NPT, F 1/2 NPT	1

No.	Part No.	Description	Qty.
10	BWMLS156	Hydraulic oil filter	1
11	BWMLS157	Hose clamp, 15/16" to 1-1/4"	2
12	BWMLS158	Suction line tube, wire reinforced	1
13	BWMLS139	Hydraulic hose, 1/2" x 38", high pressure	1
14	BWMLS138	Hydraulic hose, 1/2" x 56"	1
15	BWMLS136	Hitch pin, 5/8" x 6-1/4"	1
16	BWMLS137	R-Clip, 1/8", 1/2" to 3/4"	1
17	BWMLS159	Vent cap assembly	1

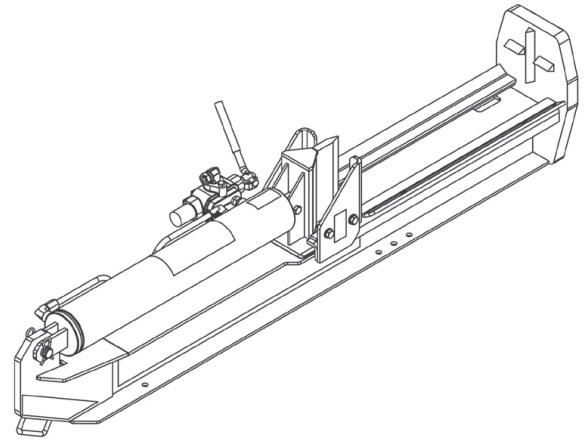
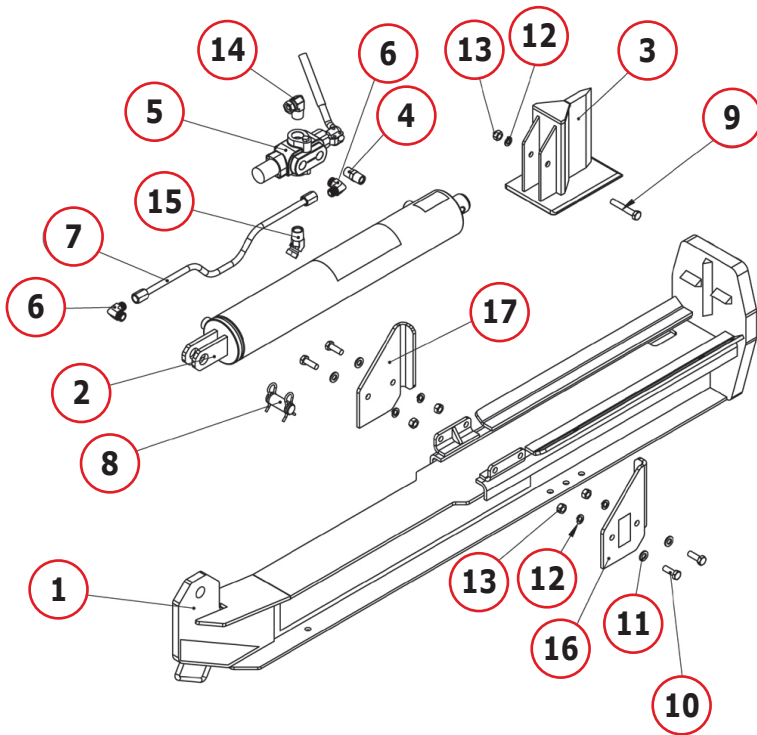
Tongue Parts **BW**MACHINERY®



No.	Part No.	Description	Qty.
1	BWMLS160	Tongue	1
2	BWMLS161	Ball coupler assembly, 2"	1
3	BWMLS162	Tongue stand	1
4	BWMLS133	Manual canister	1
5	BWMLS163	Hex bolt, M6 x 1.0 x 20mm, G8.8	3
6	BWMLS164	Fender washer, M6	3
7	BWMLS165	Shim, OD 75mm, ID 64mm x 1mm	1

No.	Part No.	Description	Qty.
8	BWMLS166	Retaining ring, external, 63mm shaft	1
9	BWMLS167	Hex bolt, M10 x 1.5 x 100mm, G8.8	1
10	BWMLS115	Flat washer, M10	4
11	BWMLS168	Locking hex nut, M10 x 1.5, G8.8	2
12	BWMLS169	Hex bolt, M10 x 1.5 x 120mm, G8.8	1
13	BWMLS170	Flat washer, 1/2"	2
14	BWMLS171	Safety chain	2

BW MACHINERY® Beam Parts



No.	Part No.	Description	Qty.
1	BWMLS172	Beam (30 ton)	1
	BWMLS198	Beam (35/40 ton)	1
2	BWMLS173	Cylinder assembly, 4-1/2", F 1/2 NPT (30 ton)	1
	BWMLS199	Cylinder assembly, 5", F 1/2 NPT (35/40 ton)	1
3	BWMLS174	Wedge, 8.5" (30 ton)	1
	BWMLS200	Wedge, 9" (35/40 ton)	1
4	BWMLS175	Nipple, 1/2 NPT, 1/2 NPT	1
5	BWMLS176	Valve, adj. detent, 3000 PSI (30 ton)	1
	BWMLS201	Valve, adj. detent, 4000 PSI (35/40 ton)	1
6	BWMLS177	Elbow, 1/2 NPT, 1/2 flare tube	2
7	BWMLS178	Tube, 1/2 OD, flared, 3/4-16" nuts	1
8	BWMLS179	Clevis pin assy, 1" OD, w/clips (30 ton)	1
	BWMLS202	Clevis pin assy, 1" OD, w/clips (35/40 ton)	1

No.	Part No.	Description	Qty.
9	BWMLS180	Hex bolt, M12 x 1.75 x 75mm, G8.8	1
10	BWMLS129	Hex bolt, M12 x 1.75 x 35mm, G8.8	4
11	BWMLS130	Flat washer, M12	4
12	BWMLS131	Lock washer, M12	5
13	BWMLS132	Hex nut, M12X1.75, G8.8	5
14	BWMLS181	Elbow, M 3/4 NPT to F1/2 NPT	1
15	BWMLS182	Fitting, 45°, M 3/4 NPT to F1/2 NPT	1
16	BWMLS183	Stripper, RT	1
17	BWMLS184	Stripper, LT	1