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StraightLine Directional Drilling System

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**Model 1415**

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**Parts Catalog**

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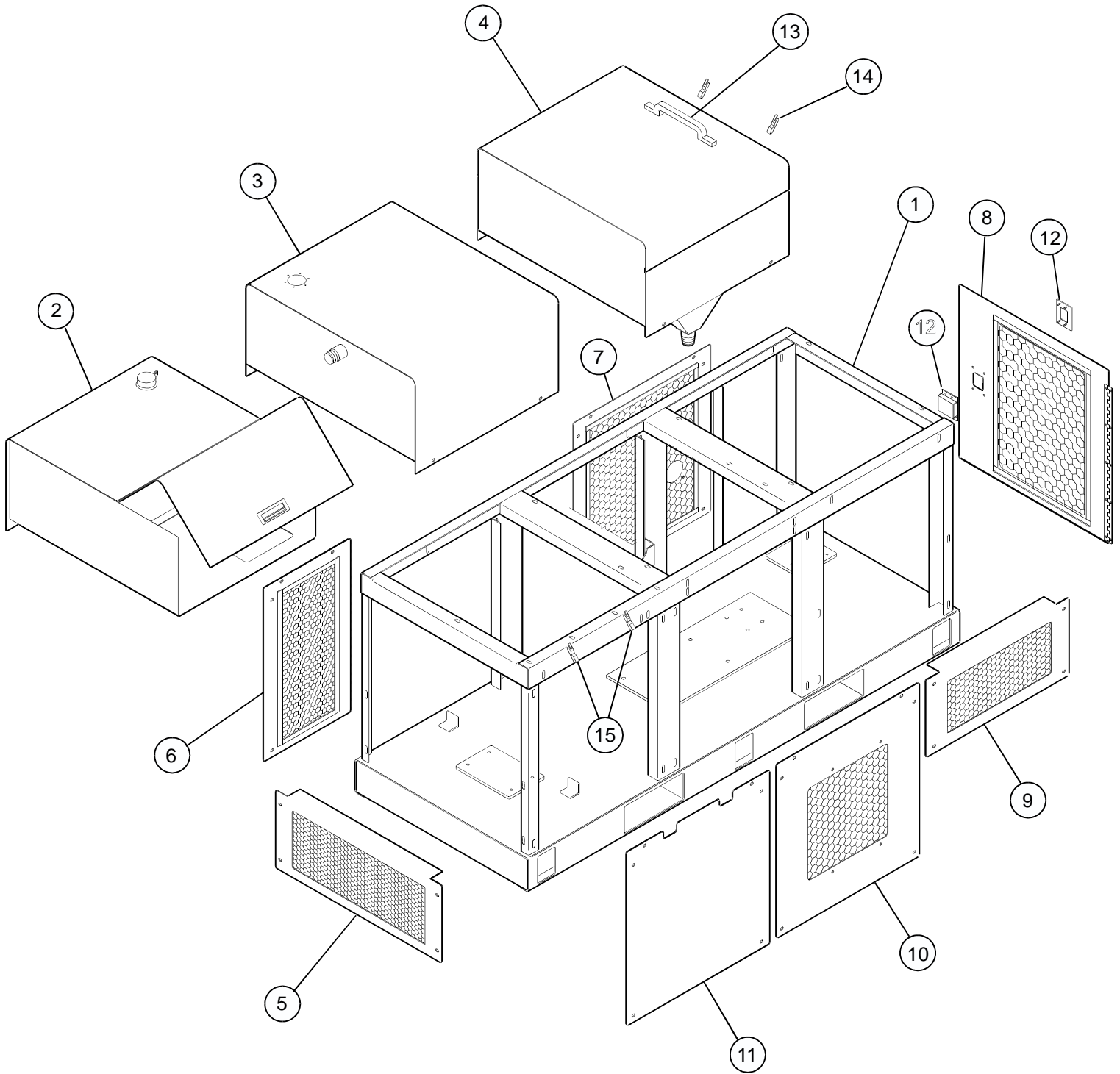
Catalog No. 9010013

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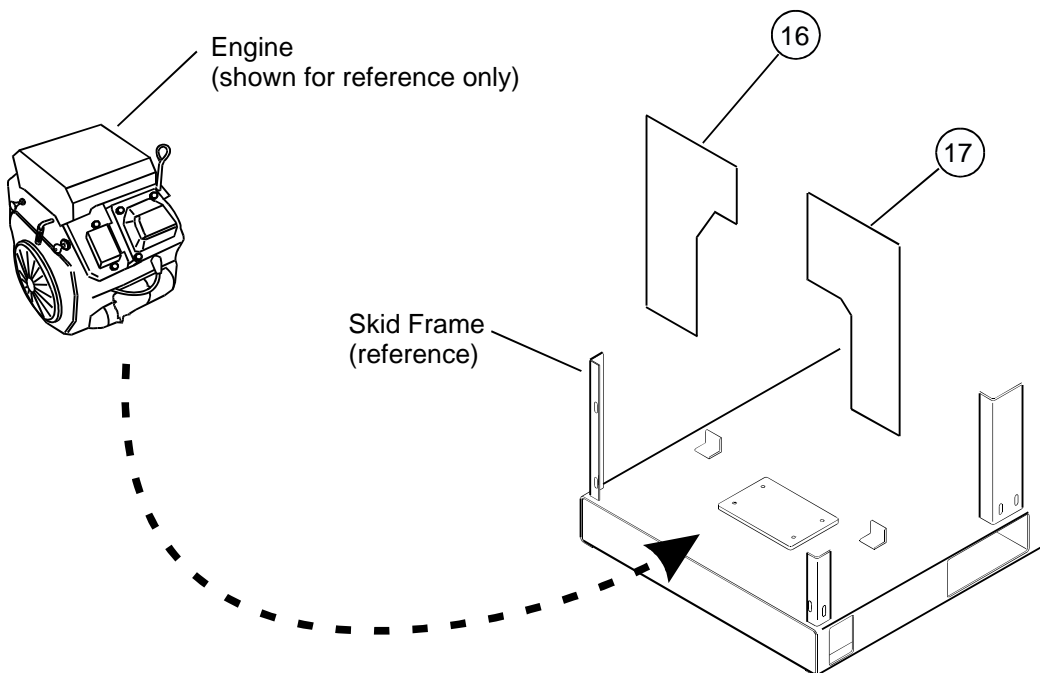
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## Frame and Shrouding

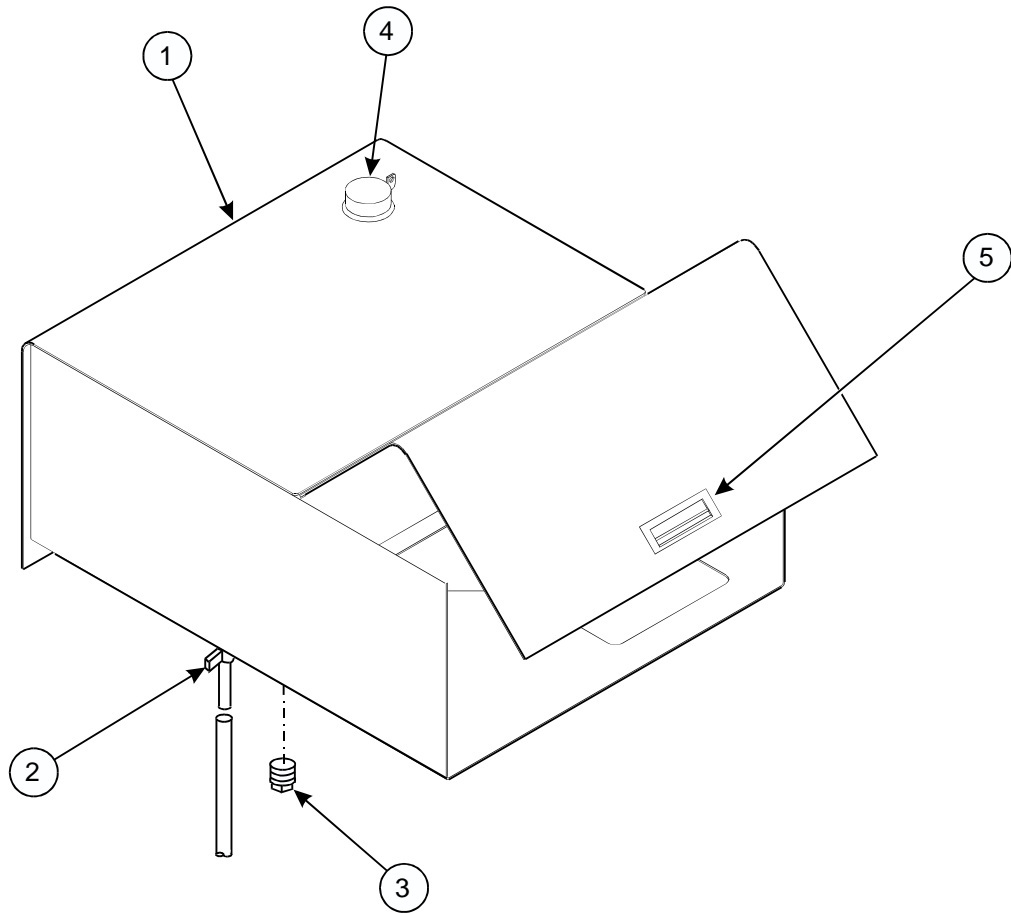


## Frame and Shrouding Parts List

<u>Item</u>	<u>Part Number</u>	<u>Description</u>	<u>Qty</u>
1.....	470186.....	Skid Frame.....	1
2.....	470210.....	Fuel Tank.....	1
3.....	470219.....	Hydraulic Tank.....	1
4.....	470225.....	Hopper.....	1
5.....	270233.....	End Panel - Engine.....	1
6.....	270238.....	Rear Panel - Engine.....	1
7.....	270239.....	Rear Panel - Mixer.....	1
8.....	270248.....	Door - Mixer.....	1
9.....	270240.....	Front Panel - Mixer.....	1
10.....	270235.....	Front Panel - Middle.....	1
11.....	361153.....	Front Panel - Engine.....	1
12.....	120103.....	Door Latch.....	1
13.....	120107.....	Pull Handle.....	1
14.....	120106.....	Draw Latch - 90°.....	2
15.....	120105.....	Draw Latch.....	2
16.....	361134.....	Heat Shield - Left.....	1
17.....	361133.....	Heat Shield - Right.....	1

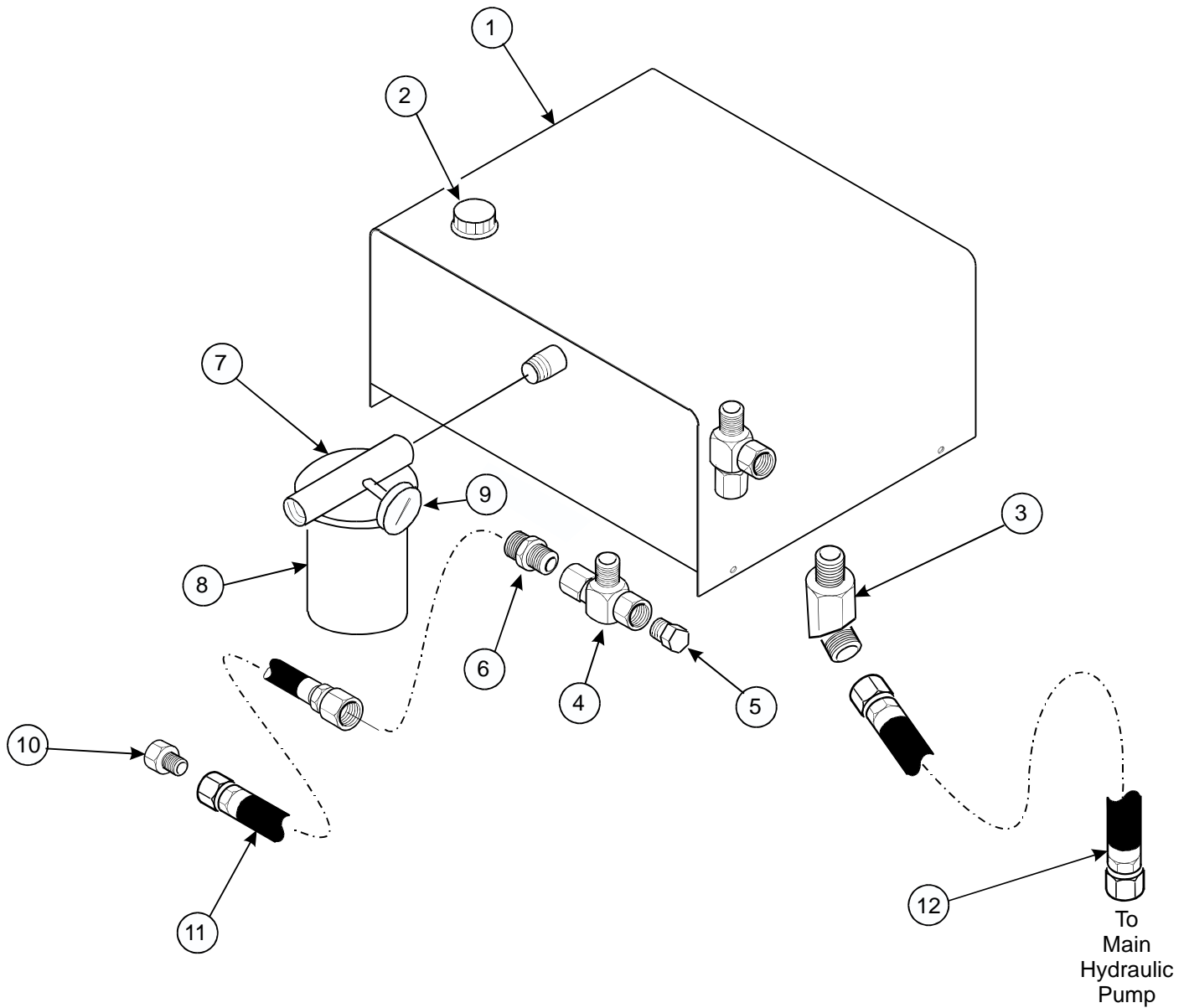


## Fuel Tank Assembly



<u>Item</u>	<u>Part Number</u>	<u>Description</u>	<u>Qty</u>
-	480074	Fuel Tank Assembly	-
1	470210	Tank Weldment	1
2	236-3074-02	Fuel Valve	1
3	236-4931-02	Magnetic Plug - 3/4" NPT	1
4	120099	Fuel Cap	1
5	120104	Flush Handle - Pocket Pull	1

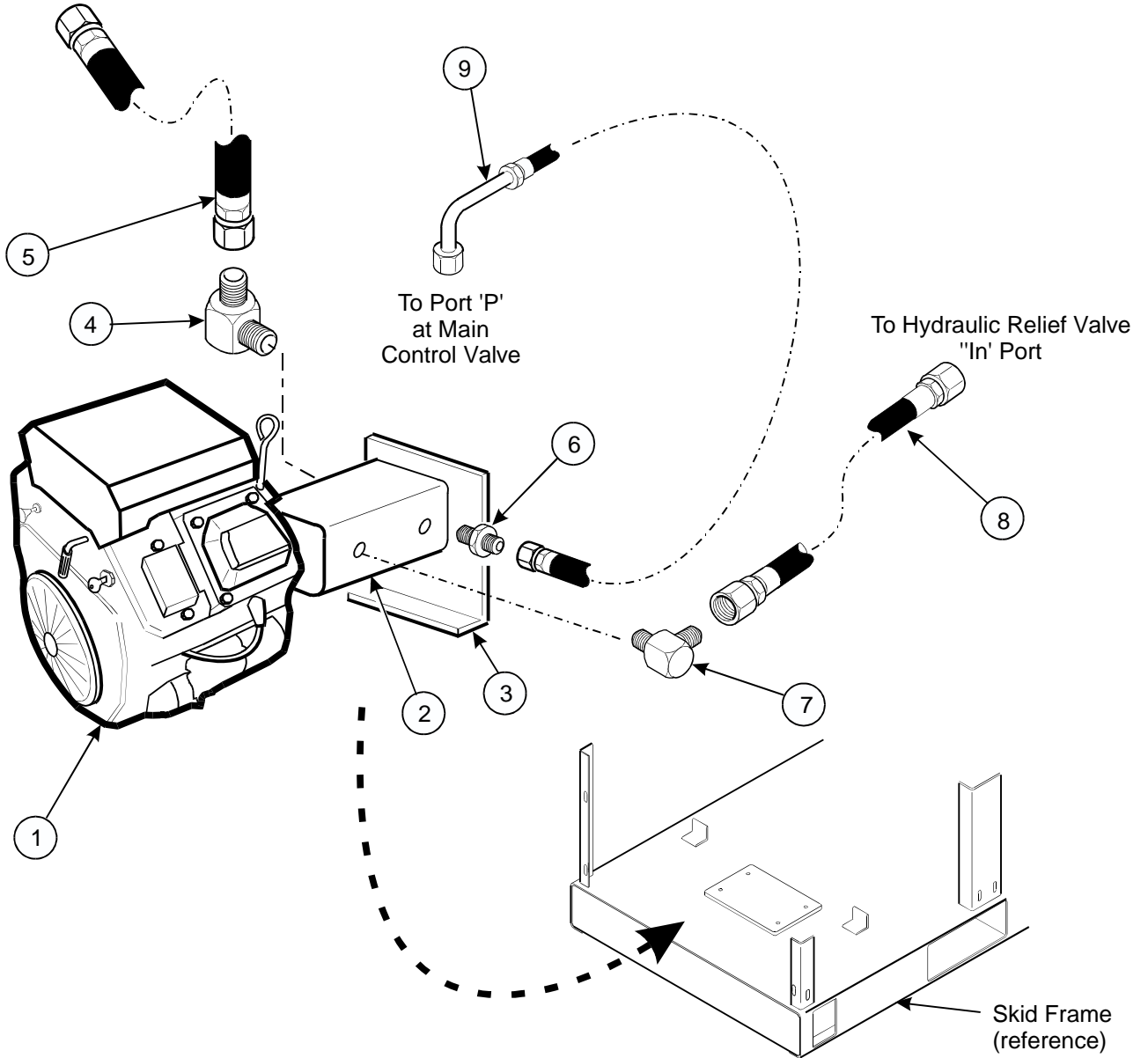
## Hydraulic Tank Assembly



<u>Item</u>	<u>Part Number</u>	<u>Description</u>	<u>Qty</u>
1.....	470219.....	Hydraulic Tank Weldment.....	1
2.....	120097.....	Breather Filler.....	1
3.....	120293.....	.45° Elbow - 20MJ-20MP45.....	1
4.....	202-255-02.....	Pipe Tee, 12MP-12FPT.....	1
5.....	236-4931-02.....	Magnetic Plug - 3/4"NPT.....	1
6.....	202-955-02.....	Adapter, 8MJ-12MP.....	1
7.....	120034.....	Filter Head.....	1
8.....	120098.....	Filter Element.....	1
9.....	236-8417-02.....	Filter Gauge.....	1
10.....	236-8806-02.....	Plug, 8MJ.....	1
11.....	236-3521-04.....	Hose Assy, -8 x 48".....	1
12.....	236-9529-04.....	Hose Assy, -20 x 19 1/2".....	1

# Engine / Hydraulic Pump

To Hydraulic Tank  
Suction Port

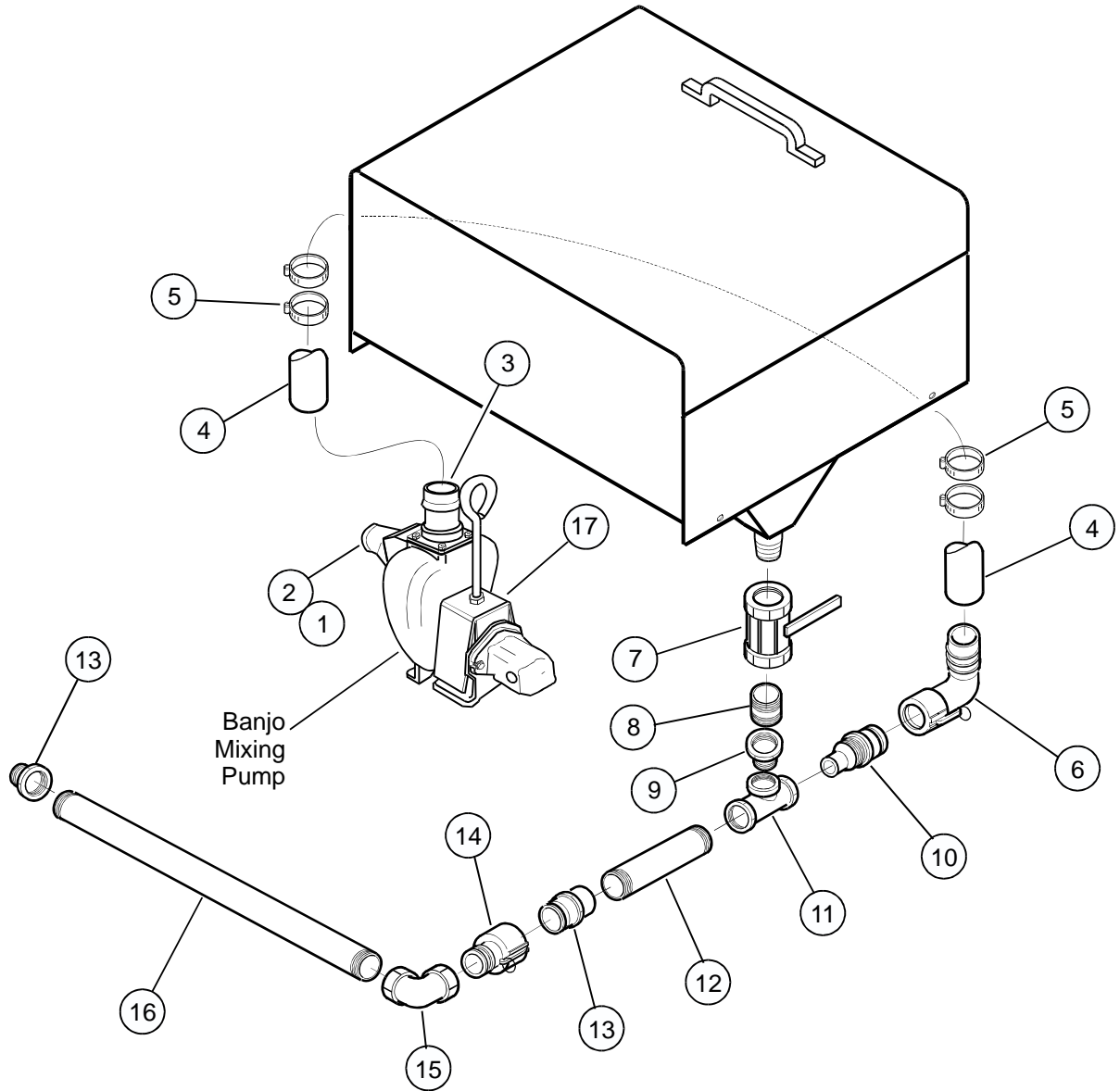


## Engine / Hydraulic Pump Parts List

<u>Item</u>	<u>Part Number</u>	<u>Description</u>	<u>Qty</u>
1.....	120089.....	Gas Engine - 25 h.p. Kohler.....	1
ref.....	120119.....	Muffler Kit.....	ref
ref.....	120379.....	Air Filter.....	ref
ref.....	120380.....	Pre-Cleaner.....	ref
ref.....	120381.....	Fuel Filter.....	ref
ref.....	120382.....	Oil Filter.....	ref
ref.....	120383.....	Ignition Key.....	2
2.....	120090.....	Hydraulic Pump.....	1
ref.....	236-3970-02.....	Front Seal.....	ref
3.....	270250.....	Pump Mount Bracket.....	1
4.....	120295.....	Adapter, 20MB-20MJ90.....	1
5.....	236-9529-04.....	Hose Assy, -20 x 19 1/2".....	1
6.....	202-217-02.....	Adapter, 12MB-8MJ.....	1
7.....	202-219-02.....	Adapter, 12MB-12MJ90.....	1
8.....	236-3807-02.....	Hose Assy, -12 x 48".....	1
9.....	236-3323-02.....	Hose Assy, -8 x 48" (90 ).....	1



# Mud Piping - Mixing Section



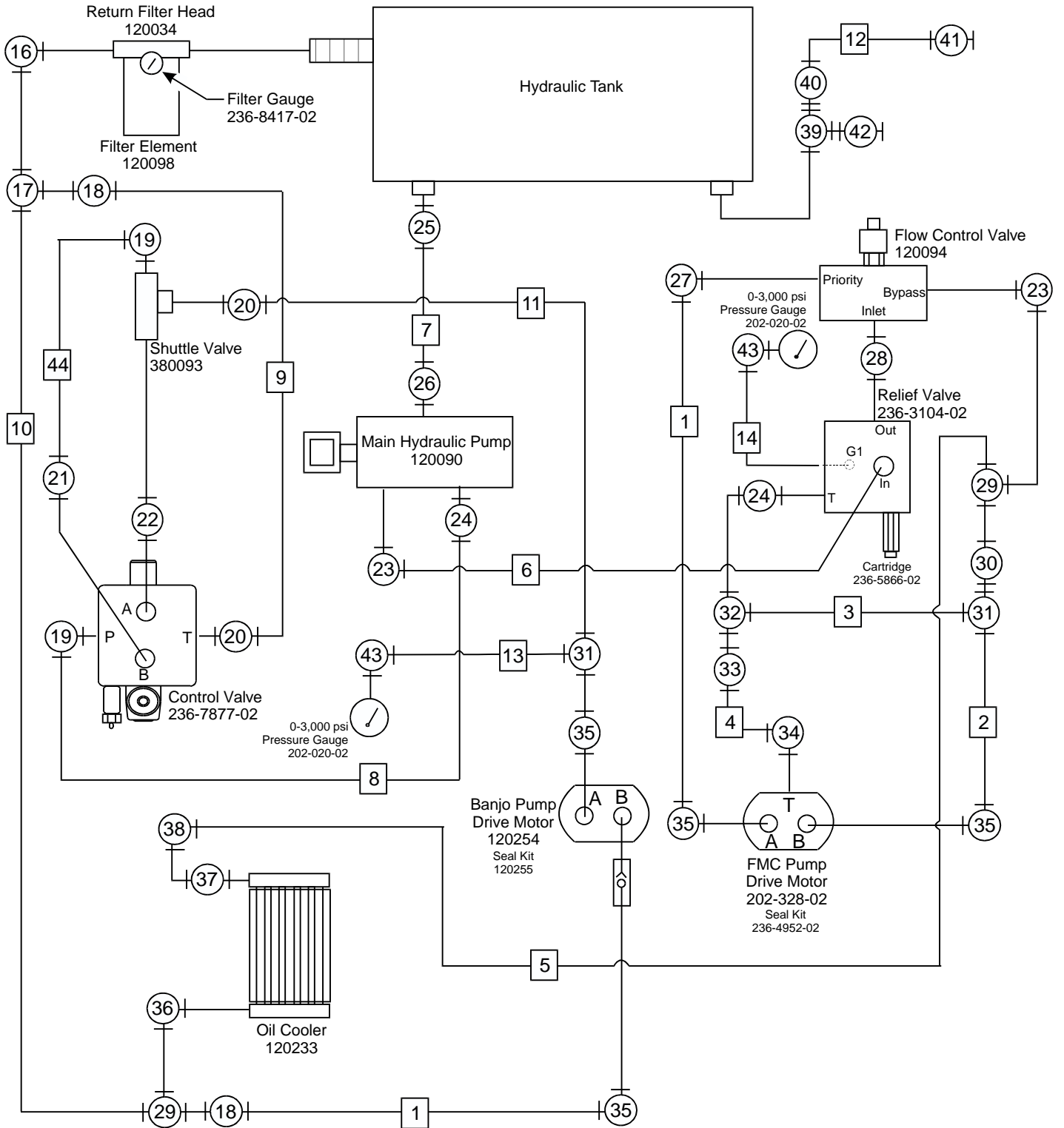
## Mud Piping - Mixing Section Parts List

<u>Item</u>	<u>Part Number</u>	<u>Description</u>	<u>Qty</u>
1.....	236-6743-02.....	Street Elbow - 2" x 45°.....	1
2.....	236-3757-02.....	Coupler, Male - 2"MQDX x 2"MP.....	1
3.....	236-3858-02.....	Adapter, Male - 2"HB x 2"MP.....	1
4.....	236-6027-03.....	Suction Hose - 2" x 42".....	1
5.....	701-436-02.....	Hose Clamp - #36.....	1
6.....	120306.....	Adapter, Female - 2"HB x 2"FP.....	1
7.....	120299.....	Ball Valve - 1 1/4".....	1
8.....	120303.....	Adapter, Straight - 20MP x 20MP.....	1
9.....	236-5752-02.....	Pipe Bushung - 2" x 1 1/4".....	1
10.....	261128.....	Flow Nozzle - Mud Mixer.....	1
11.....	236-9030-02.....	Pipe Tee - 2".....	1
12.....	120307.....	Pipe Nipple - 7 1/2".....	1
13.....	236-6035-02.....	Coupler, Male - 2"MQDX x 2"FP.....	1
14.....	236-7788-02.....	Coupler, Female - 2"MQDX x 2"MP.....	1
15.....	236-8619-02.....	Elbow - 2" 90°.....	1
16.....	120308.....	Pipe Nipple - 20".....	1
17.....	261230.....	Shield - Banjo.....	1

### Service Parts for Banjo Mixing Pump (236-8378-02)

<u>Part Number</u>	<u>Description</u>
236-6579-02.....	2" Outlet Flange
236-6580-02.....	2" 20° Inlet Flange
236-6246-02.....	* 3/4" Drive Sleeve
236-6247-02.....	* Impeller
236-9023-02.....	Gasket and Flap EPDM
236-6248-02.....	* Gasket Adapter
236-5843-02.....	* Seal Assembly
236-6249-04.....	Repair Kit (Includes items marked above*)
236-9255-02.....	Pump only
236-9256-02.....	Housing
120254.....	Hydraulic Motor
120255.....	Hyd Motor Seal Kit

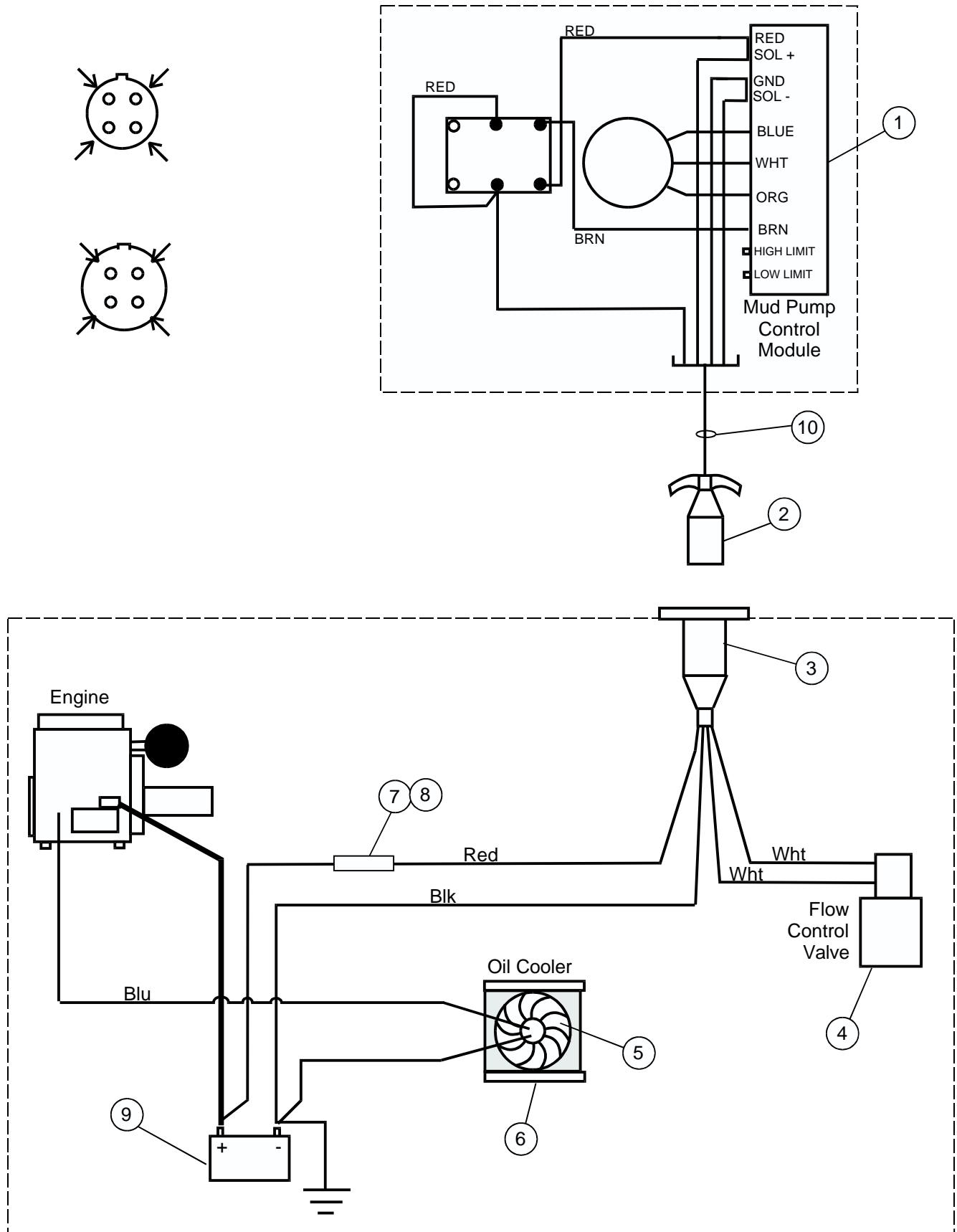
# Hydraulic Piping Assembly



## Hydraulic Piping Parts List

<u>Item</u>	<u>Part Number</u>	<u>Description</u>	<u>Qty</u>
1.....	236-3322-02.....	Hose Assy, -8 x 22".....	2
2.....	236-6833-04.....	Hose Assy, -8 x 15".....	1
3.....	236-4373-04.....	Hose Assy, -8 x 13".....	1
4.....	236-3273-02.....	Hose Assy, -4 x 14".....	1
5.....	236-3325-02.....	Hose Assy, -12 x 33".....	1
6.....	236-3807-02.....	Hose Assy, -12 x 48".....	1
7.....	236-9529-04.....	Hose Assy, -20 x 19 1/2".....	1
8.....	236-3323-02.....	Hose Assy, -8 x 48".....	1
9.....	236-1076-04.....	Hose Assy, -8 x 26".....	1
10.....	236-9528-04.....	Hose Assy, -16 x 51".....	1
11.....	236-2300-02.....	Hose Assy, -8 x 73".....	1
12.....	236-3521-02.....	Hose Assy, -8 x 48".....	1
13.....	236-8916-04.....	Hose Assy, -4 x 52".....	1
14.....	236-7497-04.....	Hose Assy, -4 x 65 1/2".....	1
15.....	120298.....	Adapter, 20MP-20FPX.....	1
16.....	202-253-02.....	90° Elbow - 16MJ-20MP90.....	1
17.....	202-939-02.....	Tee, 16MJ-16MJ-16FJXT.....	1
18.....	236-3305-02.....	Adapter, 8MJ-16FJ.....	2
19.....	202-953-02.....	90° Elbow - 8MB-8MJ90.....	2
20.....	202-946-02.....	Adapter, 8MB-8MJ.....	2
21.....	236-1784-02.....	Adapter, 6MB-8MJ.....	1
22.....	120296.....	Adapter, 6MB-6MB.....	1
23.....	202-219-02.....	90° Elbow - 12MB-12MJ90.....	2
24.....	202-217-02.....	Adapter, 12MB-8MJ.....	2
25.....	120293.....	45° Elbow - 16MJ-20MP45.....	1
26.....	120295.....	90° Elbow - 24MB-20MJ90.....	1
27.....	202-218-02.....	Adapter, 12MB-8MJ90.....	1
28.....	236-4110-02.....	Adapter, 12MB-12MB.....	1
29.....	202-950-02.....	Tee, 12MJ-12MNJ-12FJXT.....	2
30.....	202-937-02.....	Adapter, 8MJ-12FJ.....	1
31.....	202-209-02.....	Tee, 8MJ-8MJ-8FJXT.....	2
32.....	236-1074-02.....	Tee, 8FJX-8MJT.....	1
33.....	236-1043-02.....	Adapter, 4MJ-8FJ.....	2
34.....	202-908-02.....	90° Elbow - 4MB-4MJ90.....	2
35.....	202-279-02.....	90° Elbow - 10MB-8MJ90.....	4
36.....	120297.....	90° Elbow - 16MJ-12MP90.....	1
37.....	202-288-02.....	Adapter, 12MJ-12MP.....	1
38.....	202-208-02.....	90° Elbow - 16MJ-12MP90.....	1
39.....	236-3521-02.....	Tee, 12MP-12FPT.....	1
40.....	236-8916-04.....	Adapter, 8MJ-12MP.....	1
41.....	236-7497-04.....	Plug, 8MJ.....	1
42.....	236-4931-02.....	Magnetic Plug - 3/4"NPT.....	1
43.....	120294.....	90° Elbow - 4MJ-4MP90.....	2
44.....	280100.....	Tube, 1/2" Steel.....	1

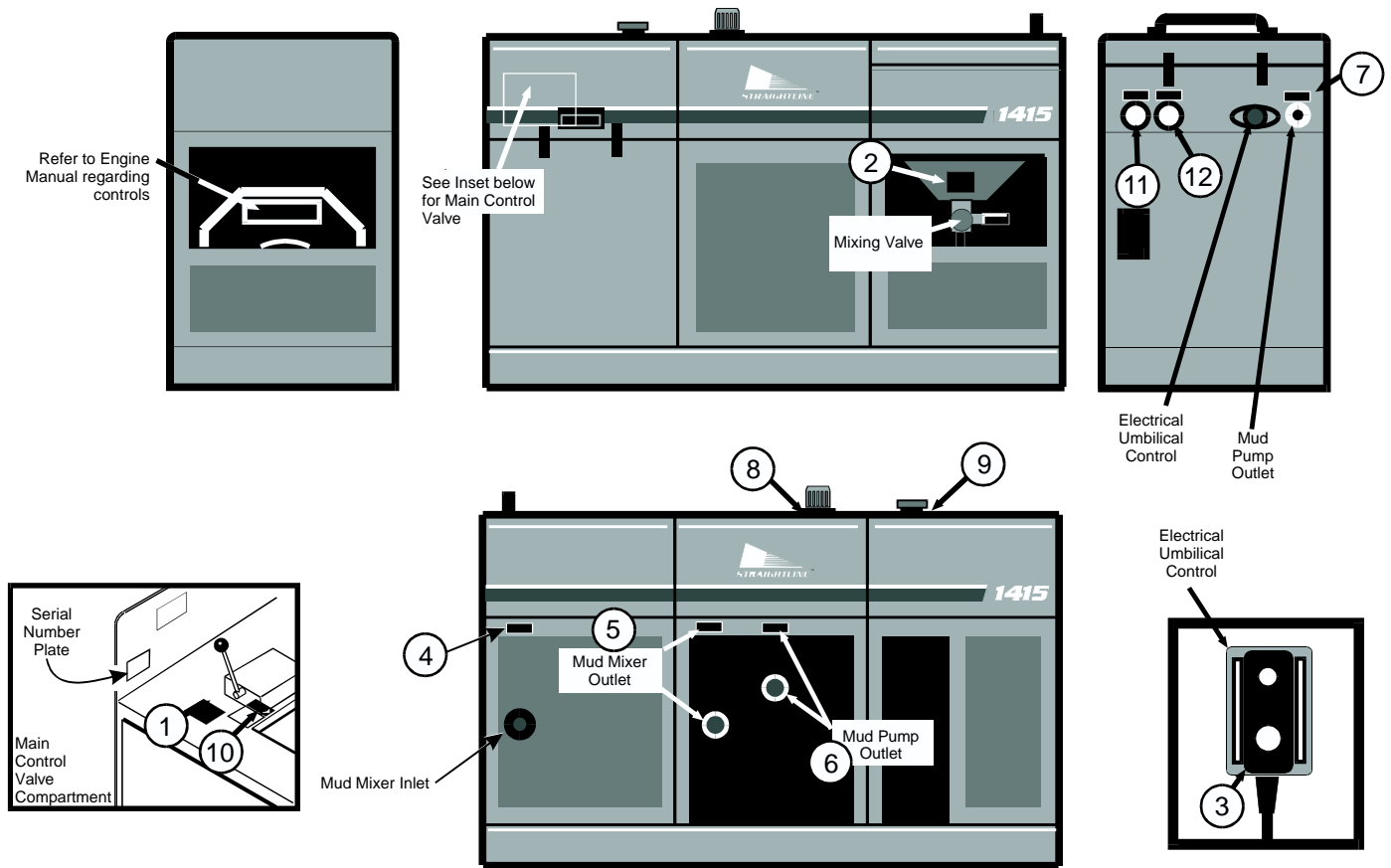
## Electrical Wiring Assembly



## Electrical Wiring Assembly Parts List

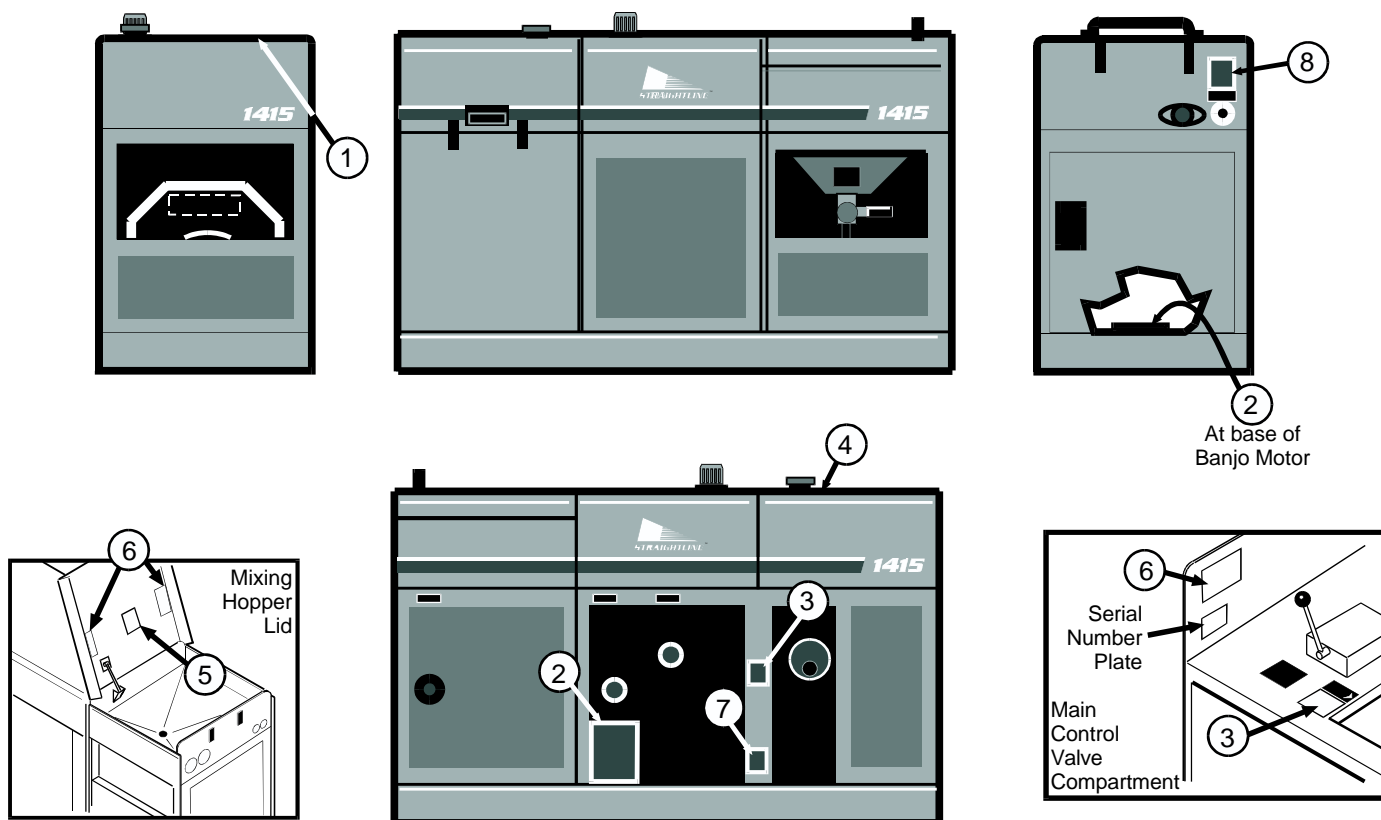
<u>Item</u>	<u>Part Number</u>	<u>Description</u>	<u>Qty</u>
1.....	120095.....	Mud Pump Control Module.....	1
2.....	203-198-02.....	Electrical Plug - 4 wire male.....	1
3.....	203-199-02.....	Electrical Plug - 4 wire female.....	1
4.....	120094.....	Flow Control Valve.....	1
5.....	120234.....	Cooler Fan.....	1
6.....	120233.....	Oil Cooler.....	1
ref.....	120236.....	Cooler Wiring Kit.....	ref
7.....	236-4072-02.....	In Line Fuseholder.....	1
8.....	203-217-02.....	3 Amp Fuse.....	1
9.....	236-2516-02.....	12 Volt Battery.....	1
ref.....	280096.....	Battery Cable - Positive.....	ref
ref.....	280097.....	Battery Cable - Negative.....	ref
10.....	120238.....	Electrical Cable - 100'.....	1

## Decals - Operational



Item	Part Number	Description	Qty
-	280085	Operational Decal Kit	-
1	120270	Decal, Operation - Mixer Control Valve	1
2	120271	Decal, Operation - Mixing Valve	1
3	120272	Decal, Operation - Mud Pump Flow Control	1
4	120273	Decal, Operation - Mud Mixer Inlet	1
5	120274	Decal, Operation - Mud Mixer Outlet	1
6	120275	Decal, Operation - Mud Pump Inlet	1
7	120276	Decal, Operation - Mud Pump Outlet	1
8	120277	Decal, Operation - Hydraulic Oil Fill	1
9	120278	Decal, Operation - Unleaded Gasoline	1
10	120279	Decal, Operation - Check Engine Oil Level	1
11	120280	Decal, Operation - Mud Pump Oil Pressure	1
12	120281	Decal, Operation - Mud Mixer Oil Pressure	1

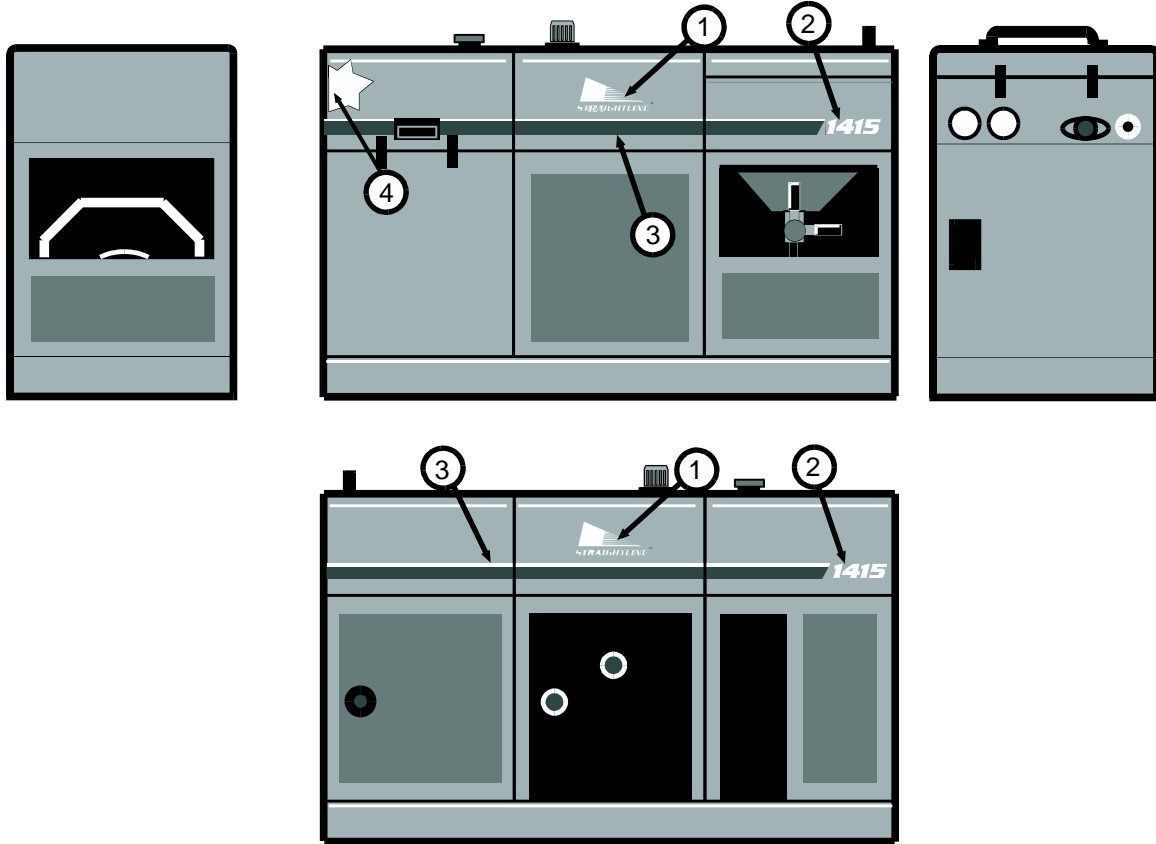
## Decals - Safety



Item	Part Number	Description	Qty
-	280086	Safety Decal Kit	-
1	220282	Decal,Safety - General Operating Instructions	1
2	120283	Decal,Safety - Warning, Rotating Shaft	1
3	120284	Decal,Safety - Warning, Hot Muffler	1
4	120285	Decal,Safety - Danger, Avoid Fuel Fire	1
5	120286	Decal,Safety - Danger, Avoid Breathing Mud Dust	1
6	120287	Decal,Safety - Warning, Avoid Crush. Fingers	1
7	120288	Decal,Safety - Warning, Avoid Battery Explosion	1
8	120289	Decal,Safety - Warning, Fluid Under Pressure	1

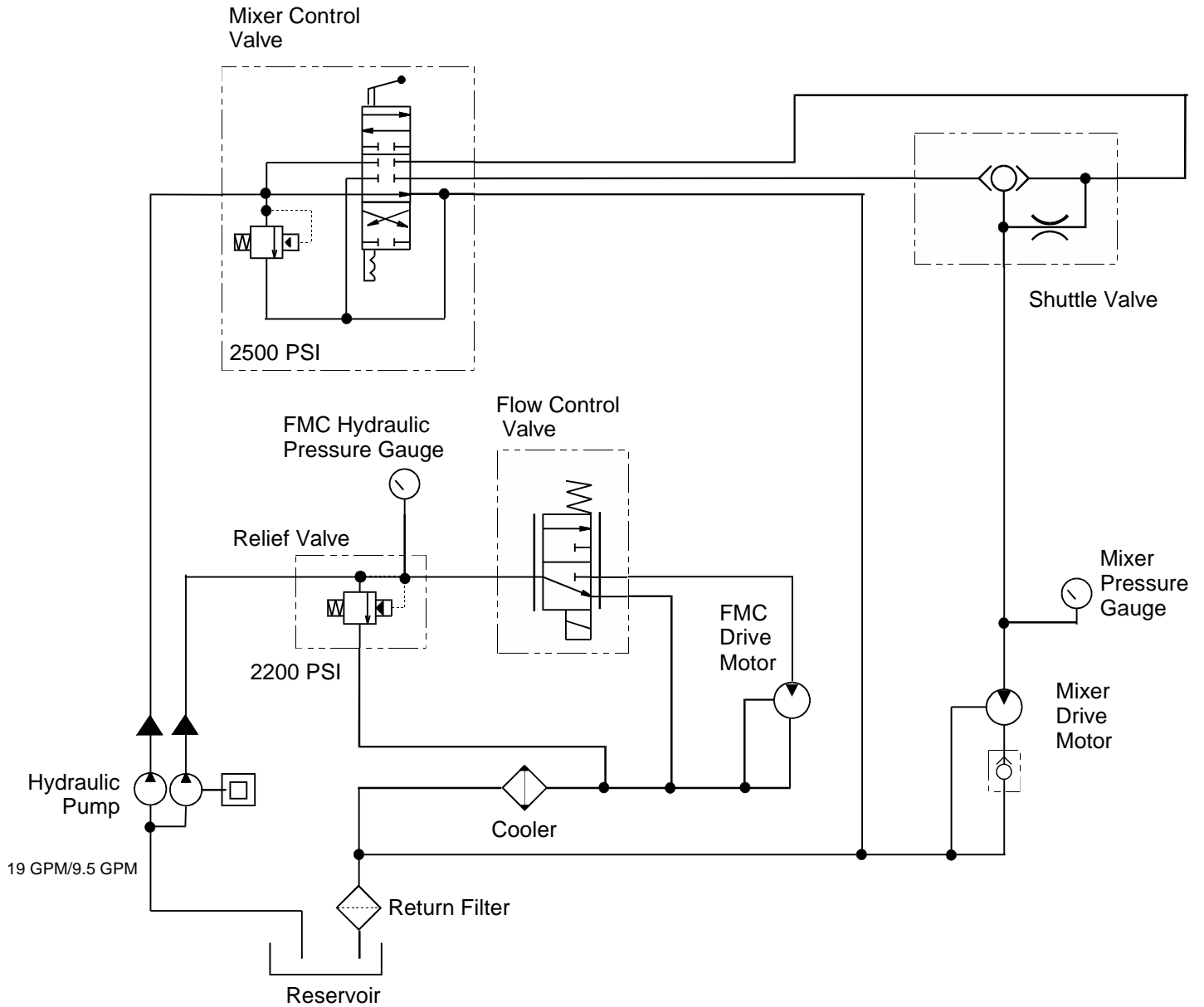


## Decals - Image

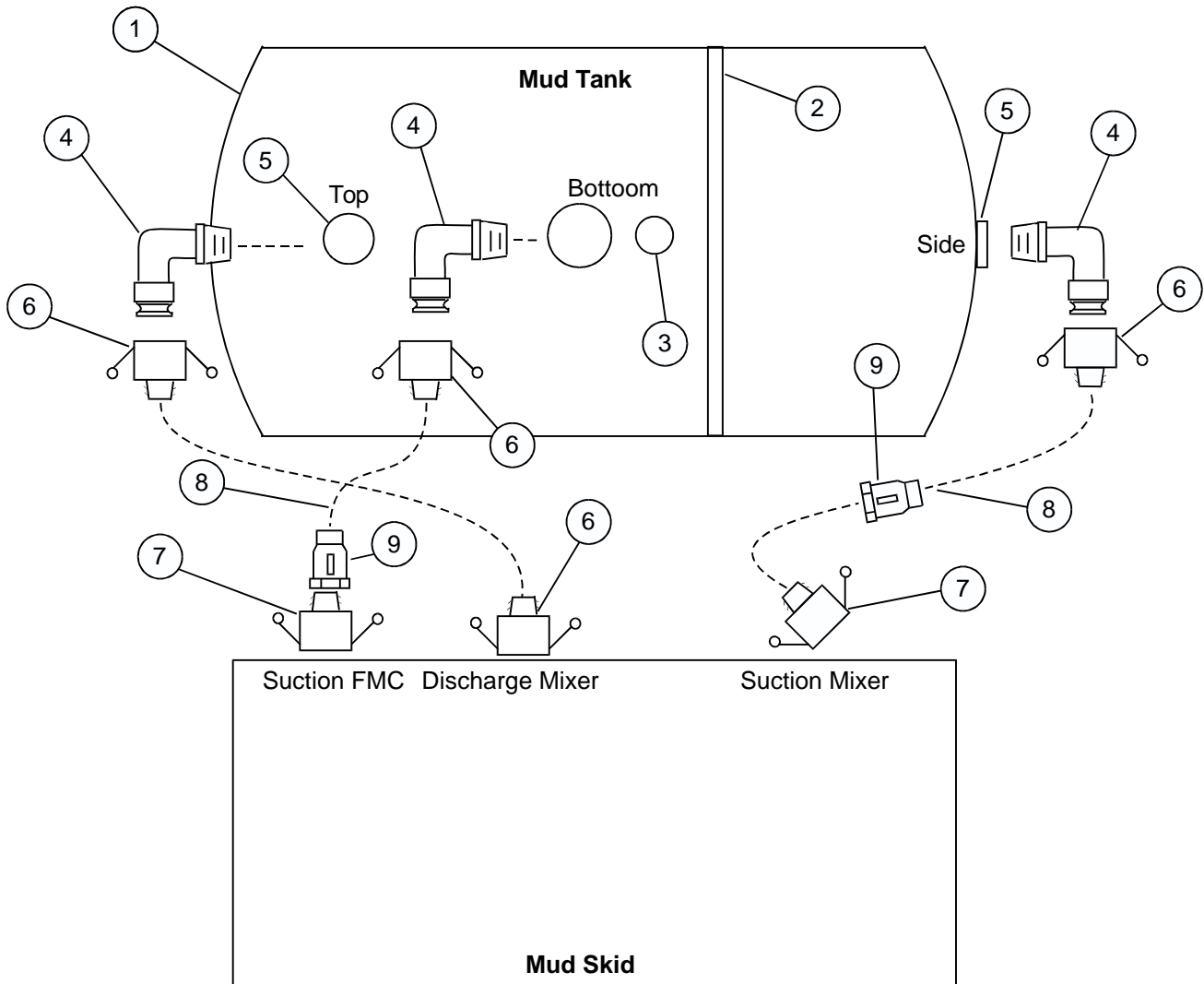


<u>Item</u>	<u>Part Number</u>	<u>Description</u>	<u>Qty</u>
-.....	280087.....	Image Decal Kit.....	-
1.....	236-9443-02.....	Decal, Identity - Straightline Logo.....	2
2.....	220290.....	Decal, Identity - Model 1415.....	2
3.....	161225.....	Decal, Identity - Blue/White Stripe.....	2
4.....	750-114-02.....	Decal, Identity - US Flag.....	1

# Hydraulic Schematic



## Mud Tank Accessories



<u>Item</u>	<u>Part Number</u>	<u>Description</u>	<u>Qty</u>
1.....	203-185-02.....	Mud Tank - 300 Gallon.....	1
2.....	236-3574-04.....	Tank Strap.....	2
3.....	236-3513-02.....	Poly Plug - 1 1/2".....	1
4.....	236-3761-02.....	Coupler, Male - 2"MQDX x 2"MP90.....	3
5.....	236-3762-02.....	Tank Port - 2".....	2
6.....	236-3762-02.....	Coupler, Female - 2"FQDX x 2"HB.....	4
7.....	236-7788-02.....	Coupler, Female - 2"FQDX x 2"MP.....	2
8.....	236-3858-02.....	Adapter, Male - 2"HB x 2"MP.....	2
9.....	236-3758-02.....	Ball Valve - 2".....	2