

# **Farm King**

## **OPERATOR AND PARTS MANUAL**

### **HYDRAULIC HOPPER MOVER**

Models BS10, BS13 Backsaver Auger

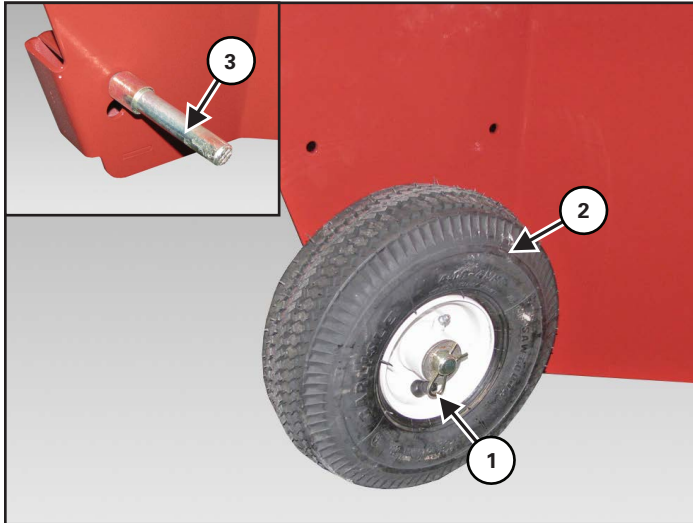
# Farm King



# ASSEMBLY

## HOPPER WHEELS

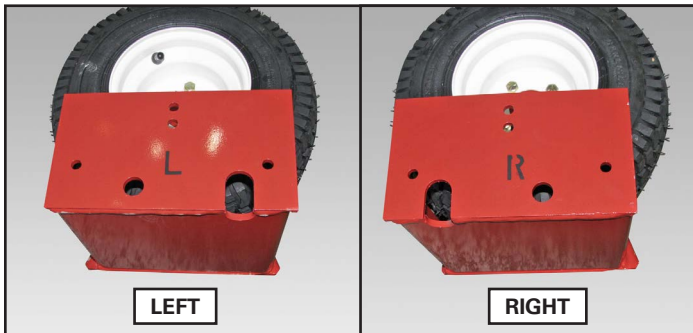
Figure 1



Remove the retaining clip (Item 1), washer, and tire (Item 2) from the hopper (the same side as intake auger). Remove the shaft (Item 3) [Figure 1].

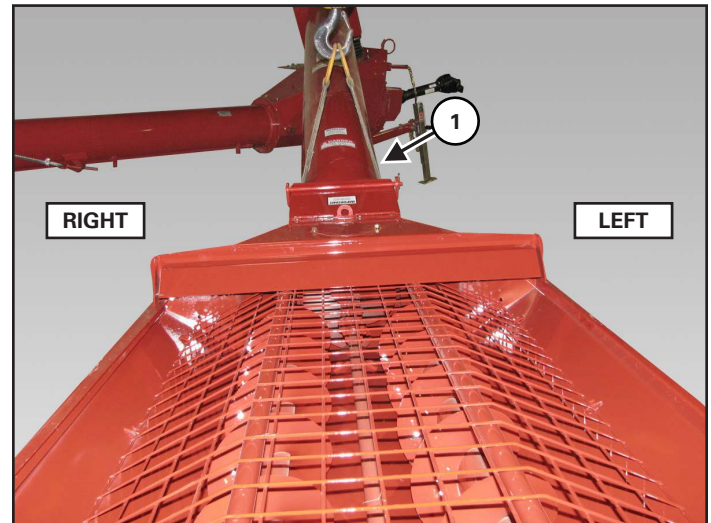
Repeat to remove opposite wheel and shaft.

Figure 2



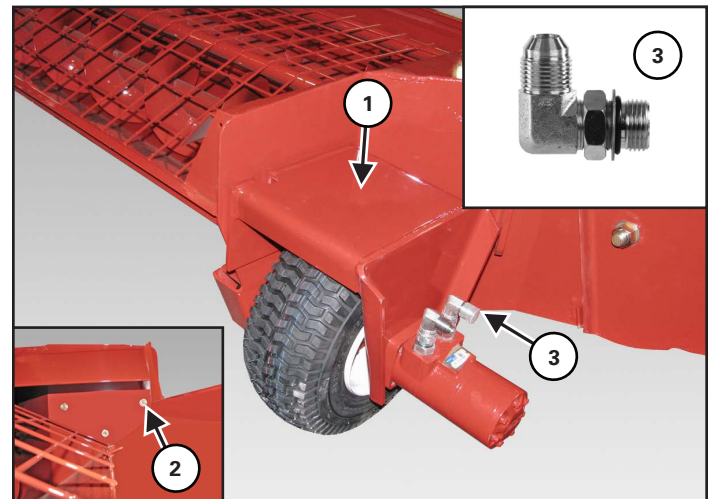
Locate the left hand (L) & right hand (R) hydraulic motor / wheel assemblies [Figure 2].

Figure 3



Right hand and left hand sides of the hopper are as viewed from the end of the hopper, looking towards the intake auger (Item 1) [Figure 3].

Figure 4



Install the left hand (L) hydraulic motor / wheel assembly (Item 1) onto the hopper using three 3/8" x 1" bolts and 3/8" lock nuts (Item 2). Tighten bolts and nuts [Figure 4].

Repeat for installing the right hand (R) hydraulic motor / wheel assembly.

Locate two 90° fittings (Item 3). Install the two fittings in the left hand hydraulic motor. Repeat to install fittings to the right hand hydraulic motor [Figure 4].

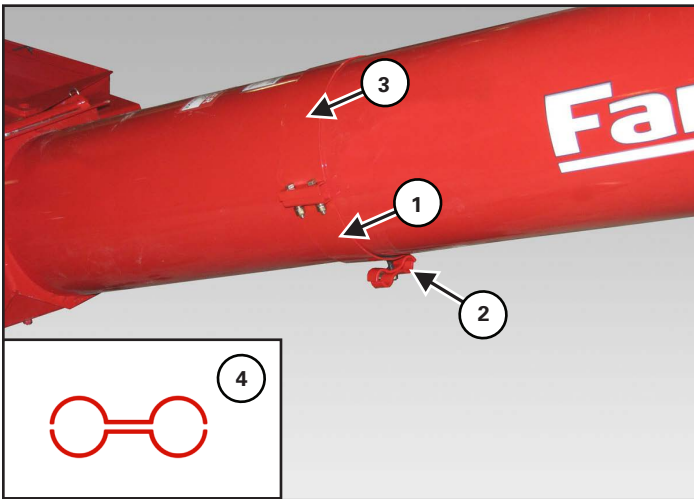
**HOSE ROUTE**

**Units Equipped With Hydraulic Winch And Hopper Mover**



The hoses are routed from the hopper wheels, under the intake tube, and to the hydraulic valve located on the input box.

**Figure 5**



Position one half clamp with bolt (Item 1) just above the two lower decals on the intake auger tube with the bolt (Item 2) centered on the bottom of the tube [Figure 5].

**NOTE:** Do not cover decals.

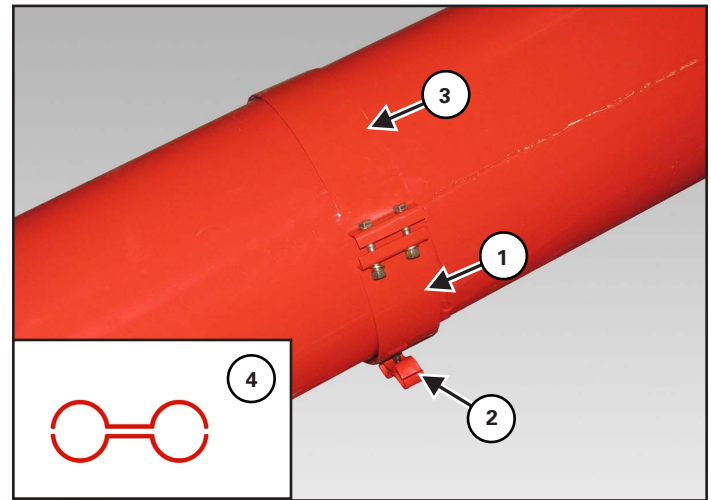
Align another half clamp (Item 3) and attach using four 3/8" x 1-1/2" bolts and four 3/8" lock nuts [Figure 5].

Tighten bolts and lock nuts until the two clamps are securely fastened around the intake auger tube.

Install two hose clamps (Item 4) (one up & one down) onto the half clamp bolt (Item 2). Install one 3/8" lock nut onto the bolt [Figure 5].

Do not tighten at this time.

**Figure 6**



Position one half clamp with bolt (Item 1) just below the intake elbow with the bolt (Item 2) centered on the bottom of the tube [Figure 6].

**NOTE:** Do not cover decals.

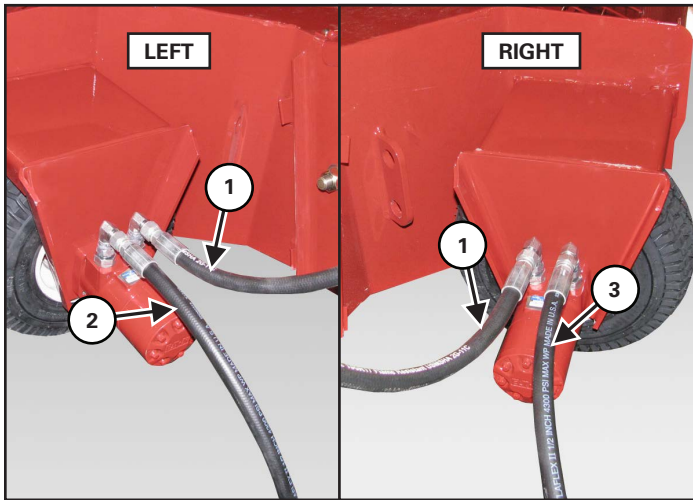
Align another half clamp (Item 3) and attach using four 3/8" x 1-1/2" bolts and four 3/8" lock nuts [Figure 6].

Tighten bolts and lock nuts until the two clamps are securely fastened around the intake auger tube.

Install two hose clamps (Item 4) (one up & one down) onto the half clamp bolt (Item 2). Install one 3/8" lock nut onto the bolt [Figure 6].

Do not tighten at this time.

**Figure 7**



Install one hydraulic hose (Item 1) onto the inside elbow fitting on the left hand motor:

- 10" Models: 1/2" x 54" hydraulic hose
- 13" Models: 1/2" x 60" hydraulic hose

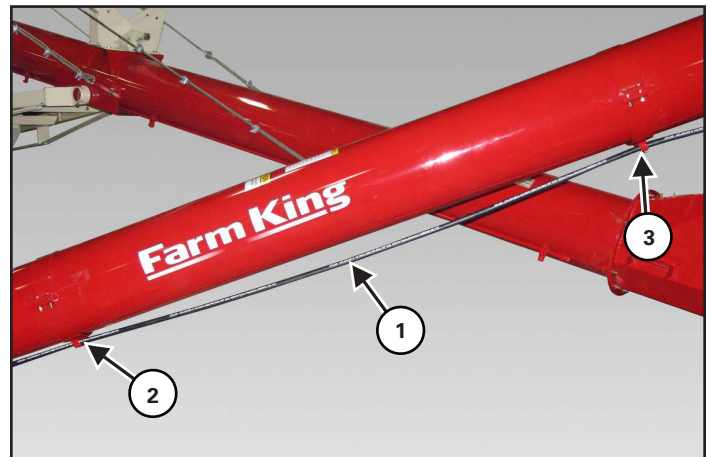
Route the hose over the hopper and install the hose onto the inside elbow fitting of the right hand motor [Figure 7].

Install two hydraulic hoses (Item 2, 3) onto the outside elbow fittings of the left and right hand hydraulic wheel motors:

- 10" Models: 1/2" x 228" hydraulic hose
- 13" Models: 1/2" x 255" hydraulic hose

Route the hoses to the intake tube [Figure 7].

**Figure 8**

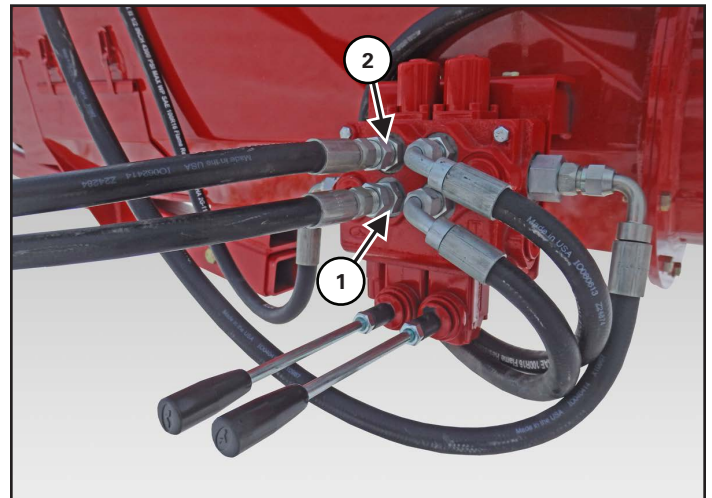


Route the two hoses (Item 1) from the left hand and right hand hydraulic wheel motors. Route along the bottom of the intake auger tube [Figure 8].

Secure the hoses to the clamps (Item 2, 3) [Figure 8].

**NOTE:** Do not cross hoses.

**Figure 9**



Remove the two plugs from the front front valve ports. Install two 7/8MORB x 3/4MJIC straight adapters to the ports.

Install the hose (Item 1) from left wheel motor onto the lower left adapter on the valve block [Figure 9].

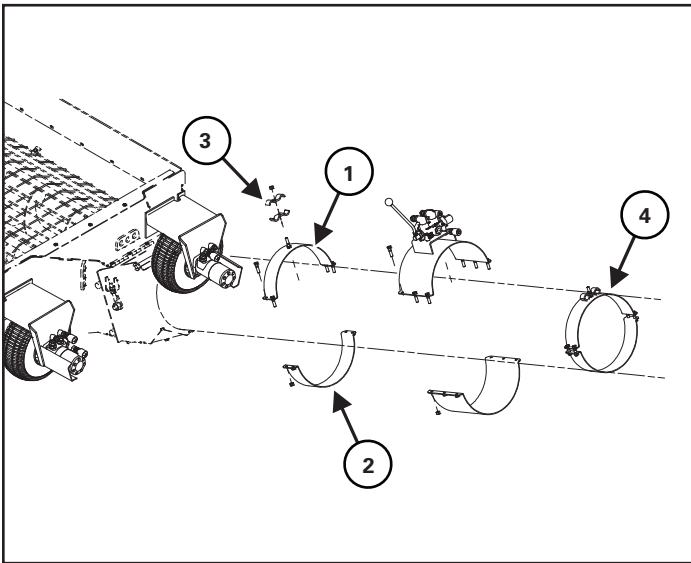
Install the hose (Item 2) from right wheel motor onto the upper right adapter on the valve block [Figure 9].

**Units Equipped With Hopper Mover Only**



The hoses are routed from the hopper wheels to the hydraulic valve located on top of the intake tube.

**Figure 10**



Position two half clamps (Item 1, 2) on the lower portion of the intake tube. Attach clamp halves using six 3/8" x 1-1/2" hex bolts and six 3/8" lock nuts [Figure 10].

The welded bolt on the clamp must face upwards.

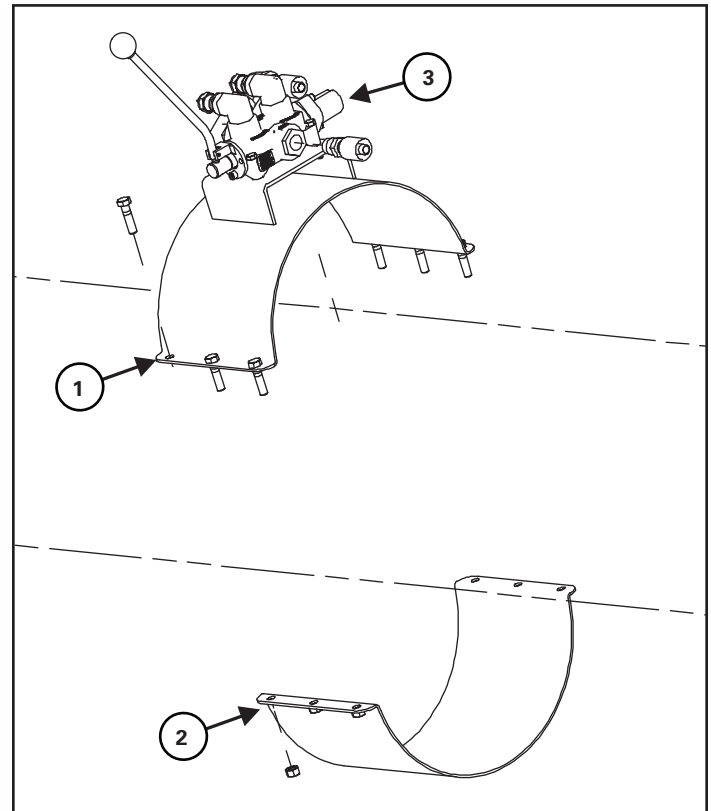
Attach two hose clamp halves (Item 3) to the welded bolt [Figure 10].

**NOTE:** Do not cover decals.

Install another half clamp pair (Item 4) and hose clamps to the upper portion of the intake tube [Figure 10].

Tighten bolts and lock nuts until the two clamps are securely fastened around the intake auger tube.

**Figure 11**



Position the two half clamps (Item 1, 2) with mount and valve (Item 3) on the center portion of the intake tube [Figure 11].

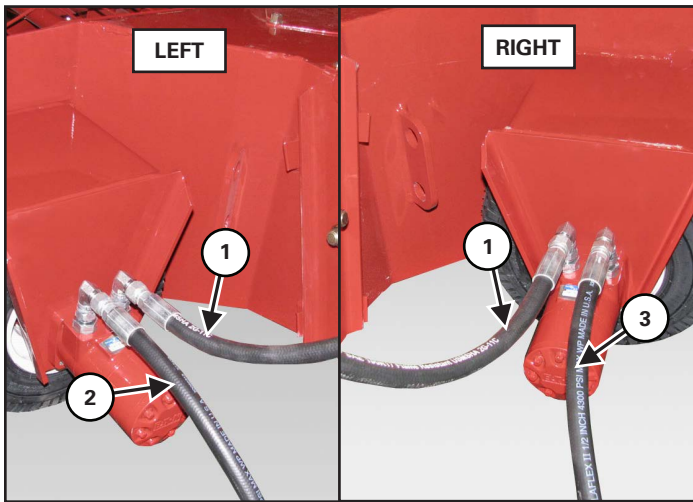
The valve assembly must face upwards. The elbow fittings on the valve should face the hopper.

Attach the two half clamps using six 3/8" x 1-1/2" hex bolts and six 3/8" lock nuts.

**NOTE:** Do not cover decals.

Tighten bolts and lock nuts until the two clamps are securely fastened around the intake auger tube.

**Figure 12**



Install one hydraulic hose (Item 1) onto the inside elbow fitting on the left hand motor:

- 10" Models: 1/2" x 54" hydraulic hose
- 13" Models: 1/2" x 60" hydraulic hose

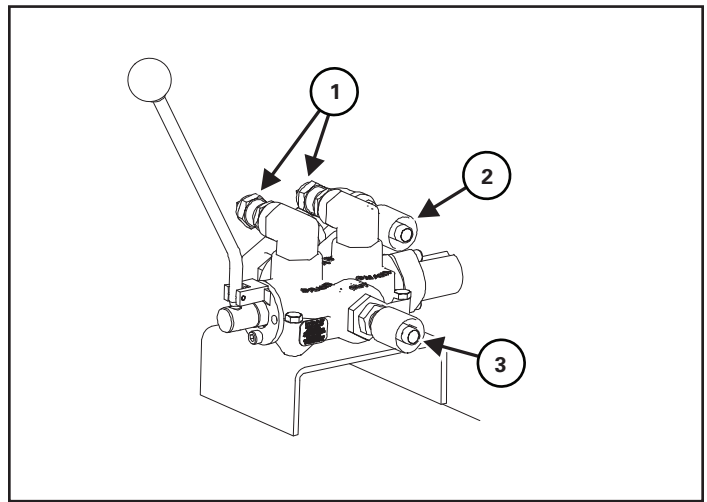
Route the hose over the hopper and install the hose onto the inside elbow fitting of the right hand motor [Figure 12].

Install two hydraulic hoses (Item 2, 3) onto the outside elbow fittings of the left and right hand hydraulic wheel motors:

- 10", 13" Models: 1/2" x 84" hydraulic hose

Route the hoses to the intake tube [Figure 12].

**Figure 13**



Install the two 84" hoses from the wheel motors to the two 1/2" elbow fittings (Item 1) on the hydraulic valve. Use the hose clamps to secure the hoses to the tube [Figure 13].

**NOTE:** Do not cross hoses.

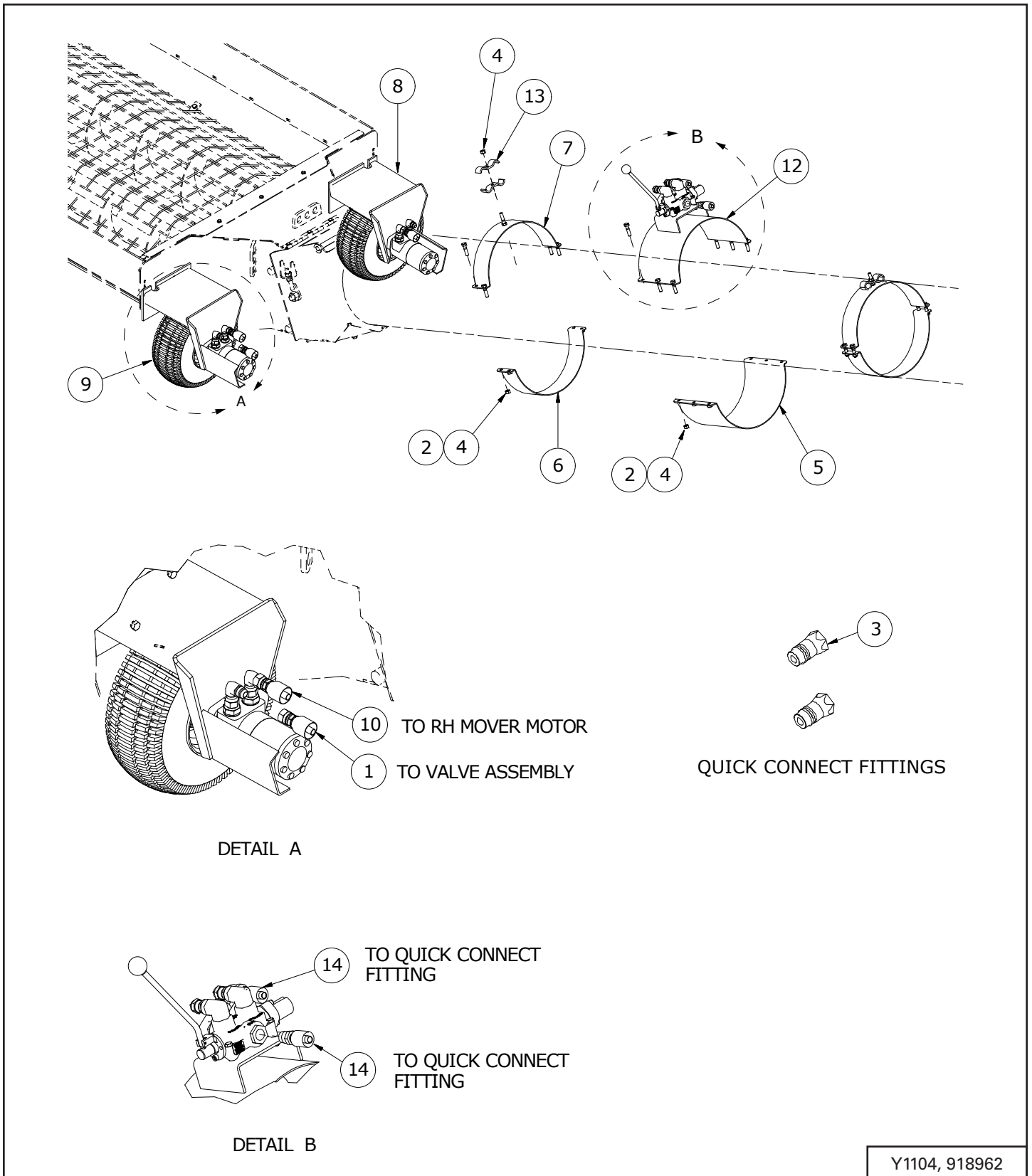
Install two hydraulic hoses to the elbow fitting (Item 2) and to the reducer fitting (Item 3) on the hydraulic valve:

- 10" Models: 1/2" x 144" hydraulic hose
- 13" Models: 1/2" x 168" hydraulic hose

Route the two hoses from the hydraulic valve to the input box and to the tractor. Use the hose clamps to secure the hoses to the tube [Figure 13].

# PART IDENTIFICATION

## HYDRAULIC HOPPER MOVER

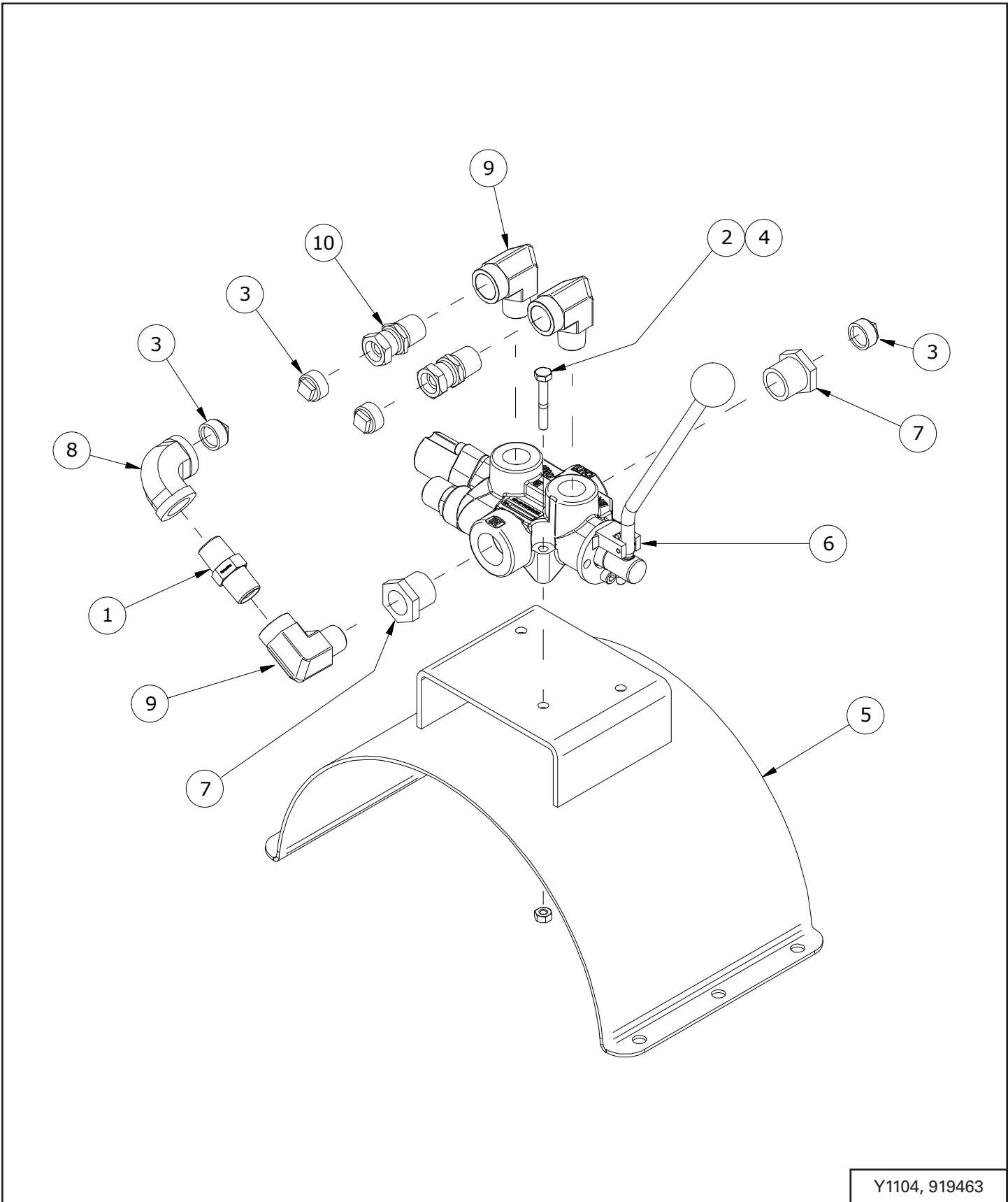


Y1104, 918962



ITEM	PART NUMBER	DESCRIPTION	QTY.
1	811484	HOSE-08 X -08 MNPT X -08 SWFJIC	2
2	811792	3/8" X 1 1/2" HEX BOLT GR.5 (PL) - 13 MODELS	14
	81581	3/8" X 2 1/2" HEX BOLT GR.5 (PL) - 10 MODELS	14
3	812208	NIPPLE 1/2" BODY 1/2"-14 NPTF QUICK CONNECT	2
4	812363	3/8" LOCK NUT (PL)	16
5	902200	BRKT - 3-BOLT CLAMP - 13 MODELS	1
	902198	BRKT - 3-BOLT CLAMP - 10 MODELS	1
6	902207	2-BOLT CLAMP 12GA - 13 MODELS	2
	902205	2-BOLT CLAMP 12GA - 10 MODELS	2
7	902208	WELDT-2-BOLT CLAMP - 13 MODELS	2
	902206	WELDT-2-BOLT CLAMP - 10 MODELS	2
8	905161	WHEEL BRACKET ASSEMBLY - LEFT	1
9	905162	WHEEL BRACKET ASSEMBLY - RIGHT	1
10	906087	HOSE-8 X -8SWFJIC X -8SWFJIC - 13 MODELS	1
	29176	HOSE-8 X -8SWFJIC X -8SWFJIC - 10 MODELS	1
11	912830	LOCTITE-242 BLUE 0.02 OZ (0.5 ML)	1
12	919463	ASSY-HYD MOVER VALVE - 13 MODELS	1
	904572	ASSY-HYD MOVER VALVE - 10 MODELS	1
13	964638	HOSE HOLDER CLAMP 3/16"	4
14	967478	HOSE-08 X -08MNPT X -08MNPT - 13 MODELS	2
	967462	HOSE-08 X -08MNPT X -08MNPT - 10 MODELS	2

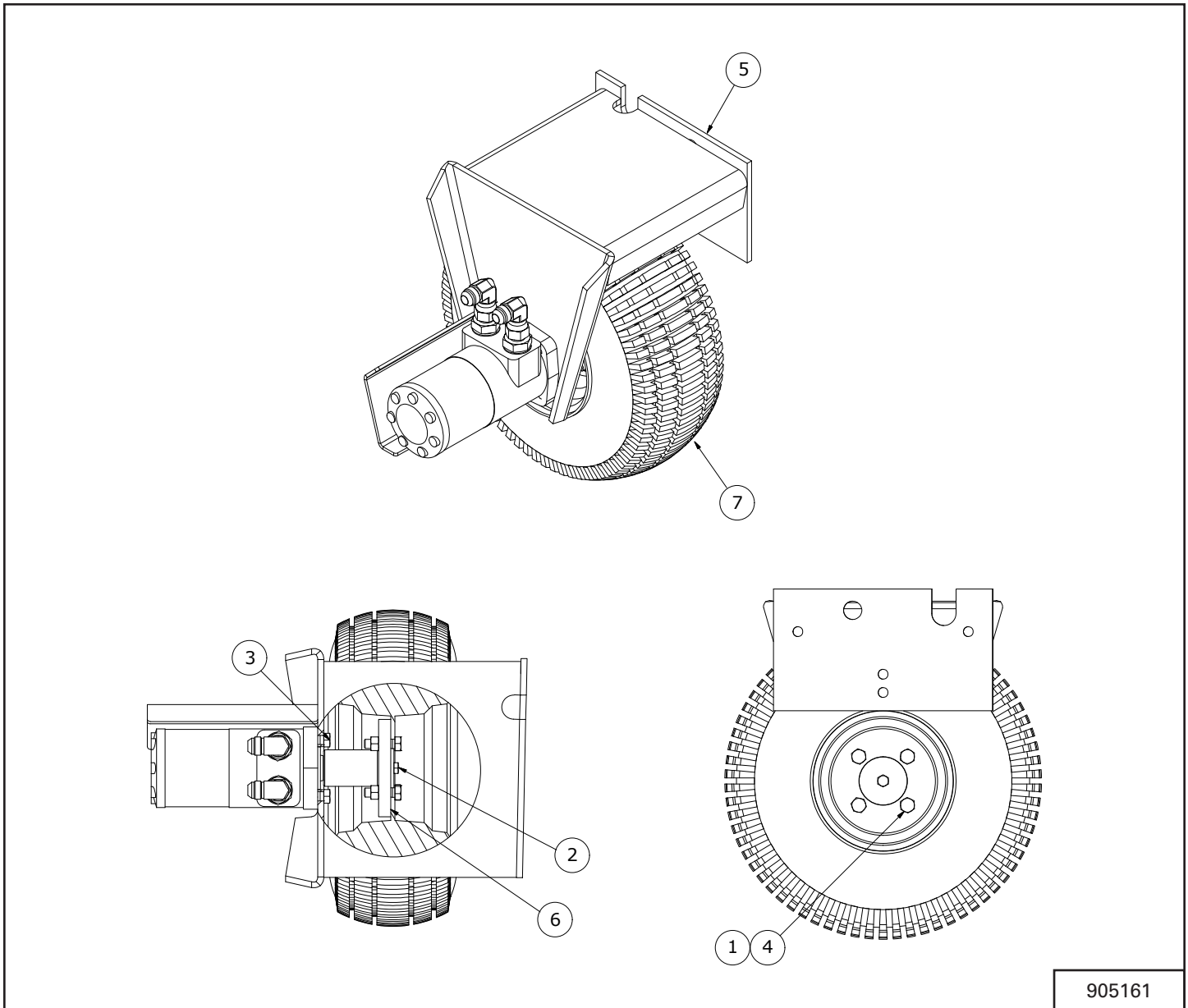
# HYDRAULIC HOPPER MOVER VALVE



Y1104, 919463

ITEM	PART NUMBER	DESCRIPTION	QTY.
1	811469	ADAPTOR STRAIGHT -8 MNPT X -8 MNPT	1
2	81530	1/4" X 1 3/4" HEX BOLT GR5 (PL)	3
3	81913	1/2" NPT CAPLUG	4
4	84498	1/4" LOCK NUT (PL)	3
5	902204	WELDT - VALVE MOUNT CLAMP - 13 MODELS	1
	904572	WELDT - VALVE MOUNT CLAMP - 10 MODELS	1
6	908995	4 WAY DIRECTIONAL CONTROL VALVE (AO)	1
7	910442	REDUCER, 3/4"MNPT X 1/2"FNPT	2
8	914930	ELBOW-8FPT X -8 FPT	1
9	960585	1/2" X 90 DEGREE STREET ELBOW (STEEL)	3
10	966307	ADAPTOR 1/2MNPT X 1/2FNPT - .0520R	2

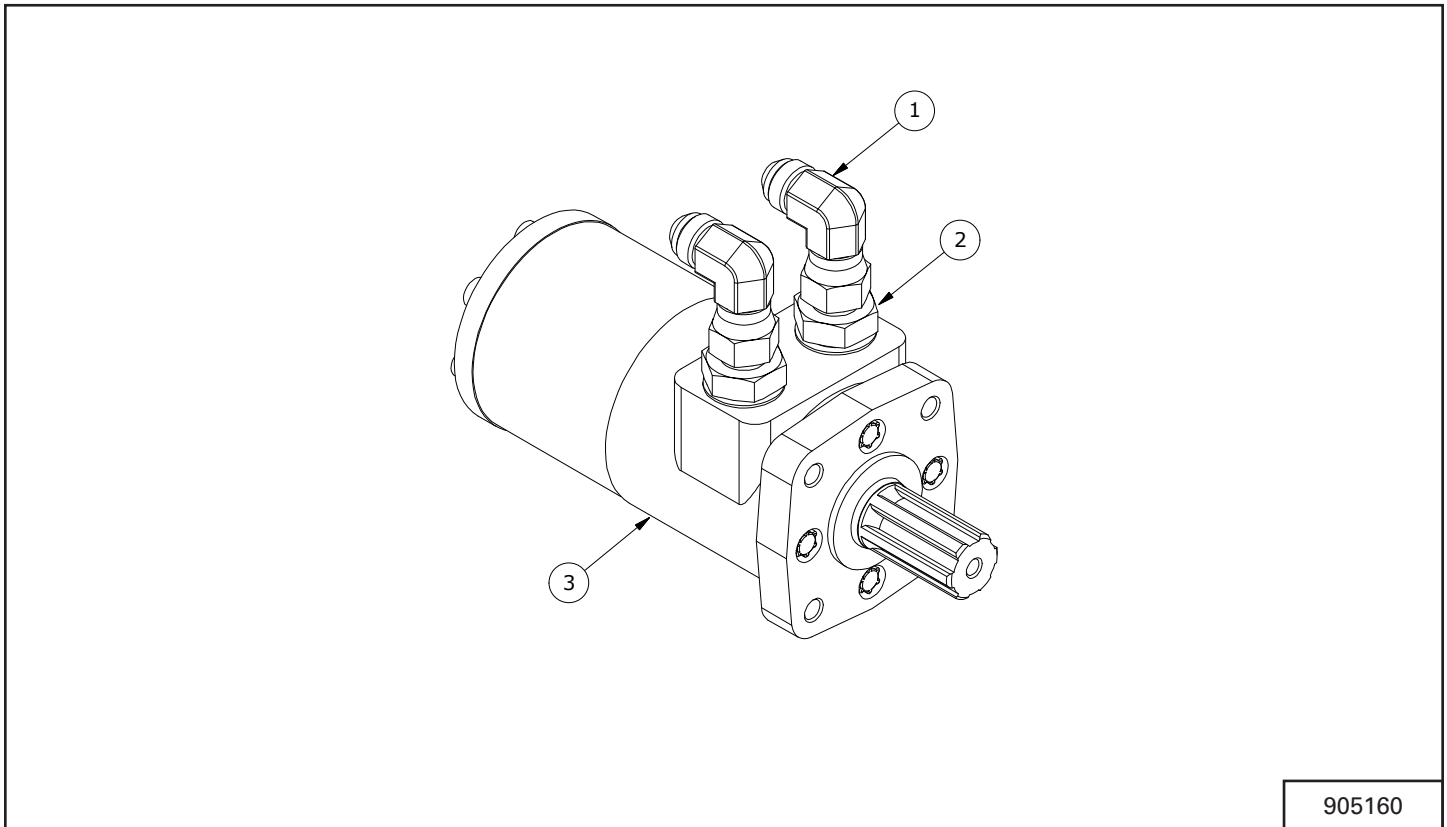
**HOPPER WHEELS**



905161

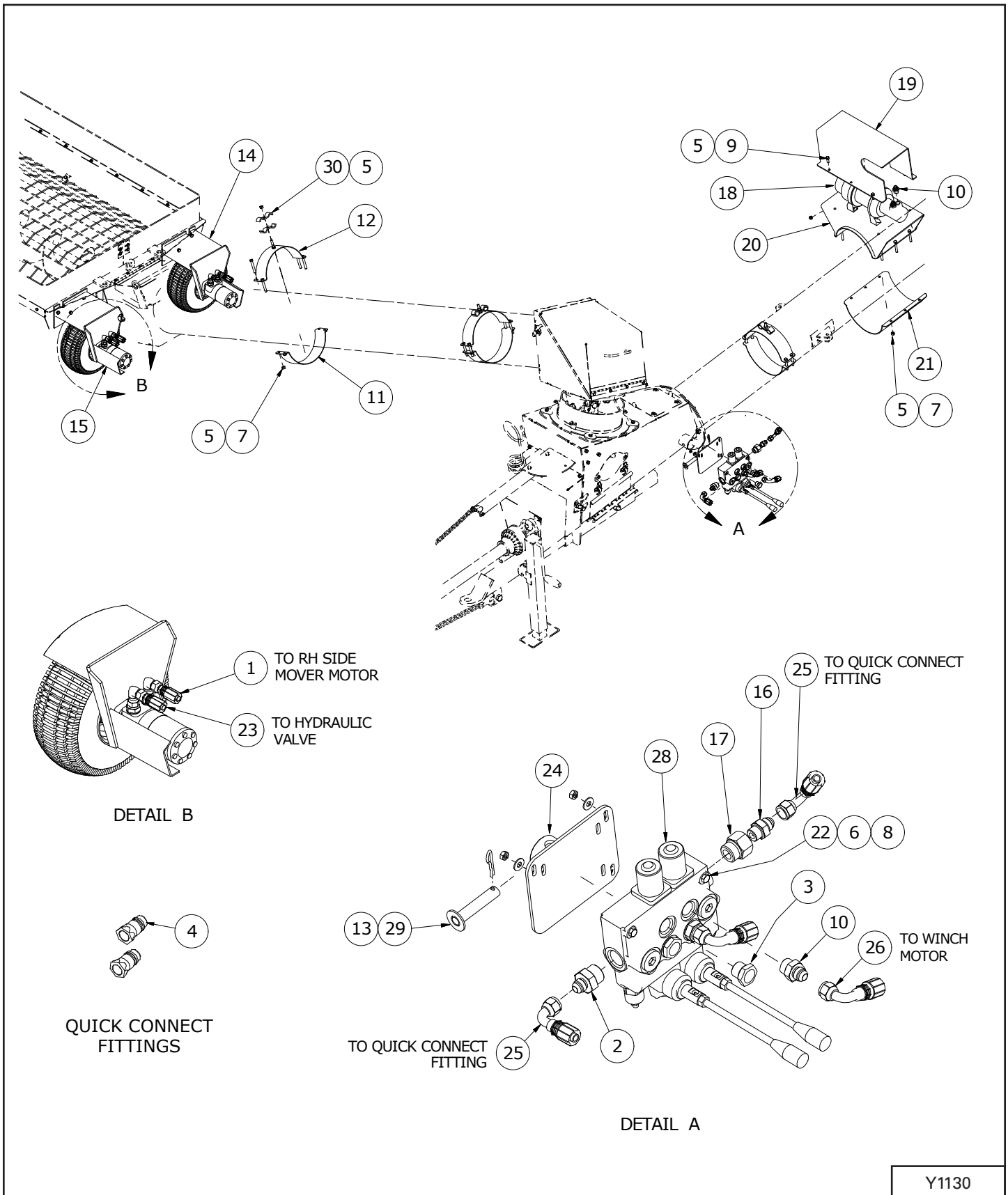
ITEM	PART NUMBER	DESCRIPTION	QTY.
1	812363	3/8" LOCK NUT (PL)	4
2	81532	1/4" X 2 1/4" HEX BOLT GR5 (PL)	1
3	84072	3/8" X 3/4" HEX BOLT (PL)	4
4	86171	3/8" X 1 1/4" HEX BOLT (PL)	4
5	903125	HYDRAULIC WHEEL BRACKET - R	1
	902569	HYDRAULIC WHEEL BRACKET - L	1
6	903127	WHEEL HUB WELDMENT	1
7	960842	TIRE W/WHL 13/500X6 4PL W/SEAL	1

**HOPPER WHEEL MOTOR**



ITEM	PART NUMBER	DESCRIPTION	QTY.
1	812829	ELBOW 90 3/4MJIC X 3/4SWFJIC	2
2	886897	ADAPTOR STR 7/8MORB X 3/4MJIC S	2
3	905159	HYD. MOTOR CHAR-LYNN 101-3102-009	1
-	905160	HYD. MOTOR COMPLETE	1

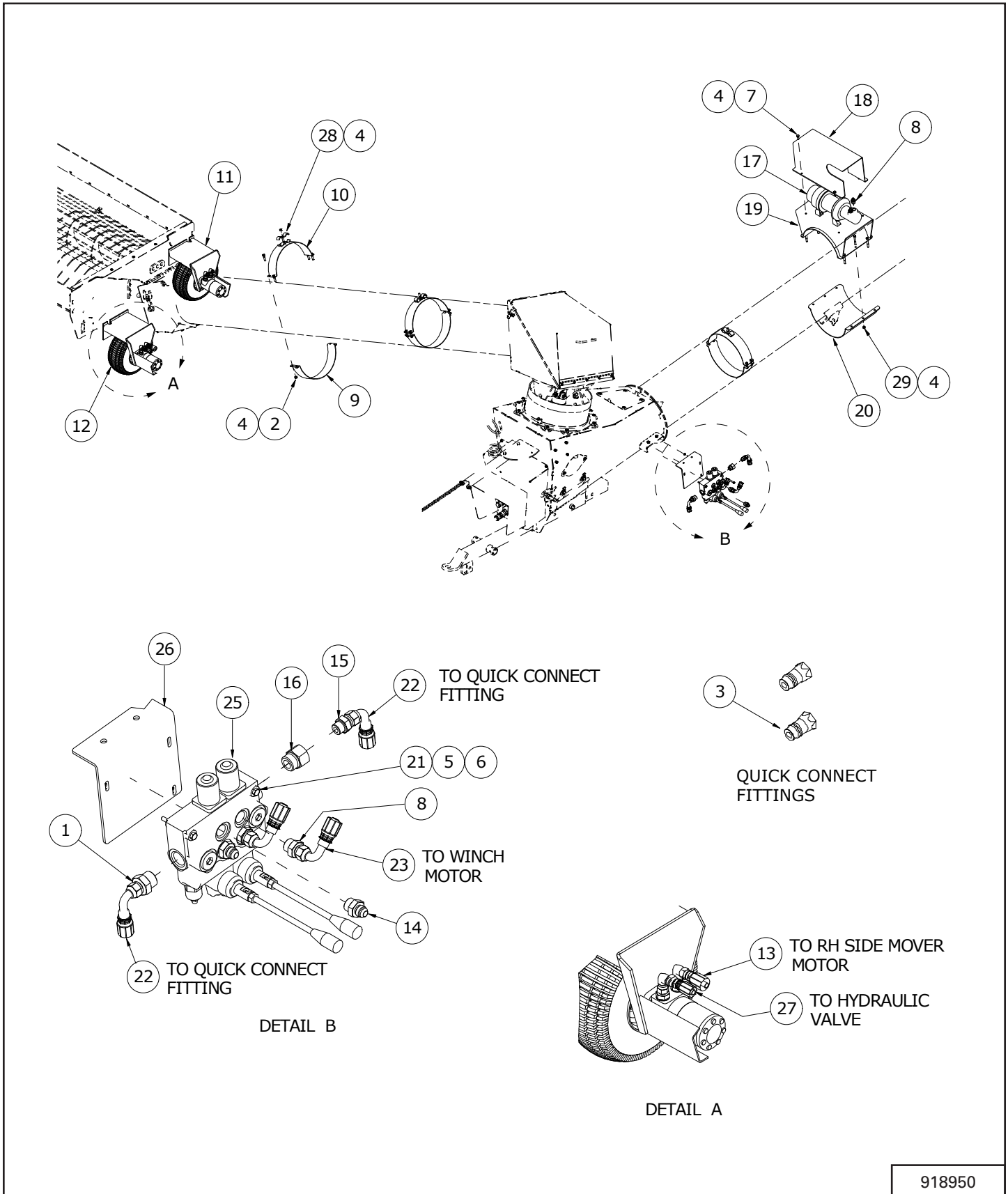
**HYDRAULIC HOPPER MOVER (WITH HYDRAULIC WINCH) - 10 MODELS**



Y1130

ITEM	PART NUMBER	DESCRIPTION	QTY.
1	29176	HOSE-8 X -8 SWFJIC- 8SWFJIC	1
2	811748	ADAPTOR -12 MORB X -8 MJIC	1
3	811970	#10 (7/8") MORB STEEL PLUG	2
4	812208	NIPPLE 1/2" BODY 1/2"-14 NPTF QUICK CONNECT	2
5	812363	3/8" LOCK NUT (PL)	25
6	81546	5/16" FLAT WASHER (PL)	3
7	81581	HEX BOLT 0.375 X 2.50	18
8	84498	1/4" LOCK NUT (PL)	3
9	86170	3/8" X 1" HEX BOLT GR.5 (PL)	4
10	886897	ADAPTOR STR 7/8MORB X 3/4MJIC S	4
11	902205	BRKT-2 BOLT CLAMP	3
12	902206	WELDT- 2 BOLT CLAMP	3
13	902486	SKID PIN WELDT 0.625" DIA	1
14	905161	WHEEL BRACKET ASSEMBLY - LEFT	1
15	905162	WHEEL BRACKET ASSEMBLY - RIGHT	1
16	909935	ADAPTOR CHECK VALVE (#8 MORB - #8 MJIC)	1
17	909936	ADAPTER-12MORB X -8FORB	1
18	910483	WARN HYDRAULIC WINCH	1
19	910490	HYD. WINCH SHIELD 7GA	1
20	910493	WELDT-HYD. WINCH MOUNT	1
21	910495	BRKT - 3 BOLT CLAMP	1
22	910523	1/4" X 2 3/4" HEX BOLT (PL)	3
23	910925	HOSE 1/2" X 228" (1/2" SWMNPT X 3/4" SWFJIC)	2
24	911153	HYD. VALVE BRACKET WELDT	1
25	912250	HOSE 1/2" X 138 1/2" MNPT X 3/4" SWFJIC 90	2
26	912251	HYD. HOSE 1/2" X 112"	2
27	912830	LOCTITE-242 BLUE 0.02 OZ (0.5 mL)	1
28	917223	ASSEMBLY-VALVE W/HANDLEVERS	1
29	961012	#16 HAIR PIN CLIP	1
30	964638	HOSE HOLDER CLAMP 3/16"	6

**HYDRAULIC HOPPER MOVER (WITH HYDRAULIC WINCH) - 13 MODELS**



918950



ITEM	PART NUMBER	DESCRIPTION	QTY.
1	811748	ADAPTOR -12 MORB X -8 MJIC	1
2	811792	3/8" X 1 1/2" HEX BOLT GR.5 (PL)	12
3	812208	NIPPLE 1/2" BODY 1/2"-14 NPTF QUICK CONNECT	2
4	812363	3/8" LOCK NUT (PL)	25
5	812624	1/4" FLAT WASHER PL	3
6	84498	1/4" LOCK NUT (PL)	3
7	86170	3/8" X 1" HEX BOLT GR.5 (PL)	4
8	886897	ADAPTOR STR 7/8MORB X 3/4MJIC S	4
9	902207	2-BOLT CLAMP 12GA	3
10	902208	WELDT-2-BOLT CLAMP	3
11	905161	WHEEL BRACKET ASSEMBLY - LEFT	1
12	905162	WHEEL BRACKET ASSEMBLY - RIGHT	1
13	906087	HOSE-8 X -8SWFJIC X -8SWFJIC	1
14	909460	ADAPTOR STR 7/8MORB X 3/4MJIC R.0625	2
15	909935	ADAPTOR CHECK VALVE (#8 MORB - #8 MJIC)	1
16	909936	ADAPTER-12MORB X -8FORB	1
17	910483	WARN HYDRAULIC WINCH	1
18	910490	HYD. WINCH SHIELD 7GA	1
19	910492	WELDT - HYD. WINCH MOUNT	1
20	910496	HYD. WINCH MOUNT 3-BOLT CLAMP	1
21	910523	1/4" X 2 3/4" HEX BOLT (PL)	3
22	912250	HYD. HOSE 1/2" X 140"	2
23	912251	HYD. HOSE 1/2" X 112"	2
24	912830	LOCTITE-242 BLUE 0.02 OZ (0.5 ML)	1
25	917223	ASSEMBLY-VALVE W/HANDLEVERS	1
26	918958	BRKT-HYD VALVE MOUNT	1
27	935659	HOSE 1/2ID X 3/4 SWFJIC X -8SWFJIC	2
28	964638	HOSE HOLDER CLAMP 3/16"	6
29	967488	3/8" X 2 3/4" HEX BOLT (PL)	6

[www.farm-king.com](http://www.farm-king.com)

# Farm King

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