



BOOM POSITION SENSOR

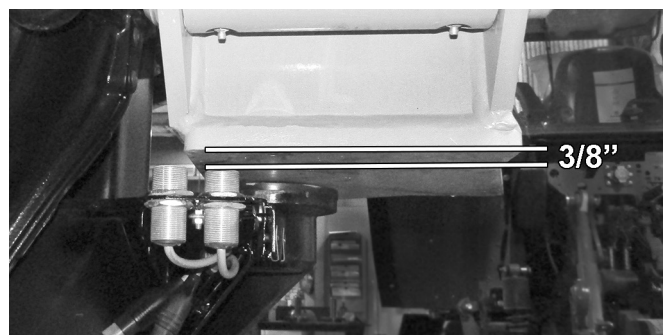
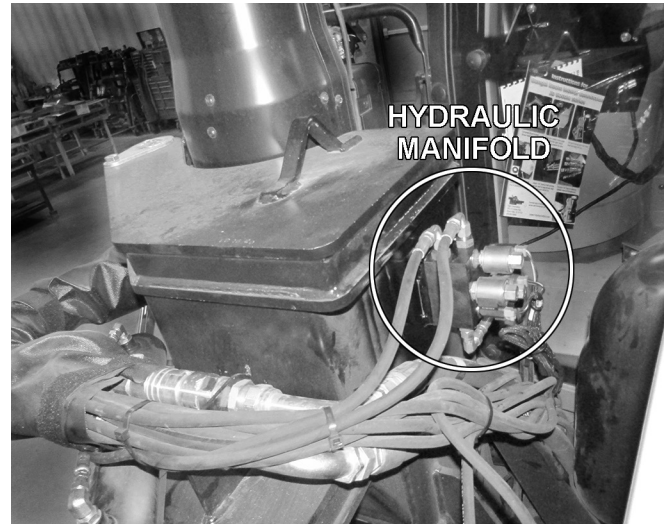
JD6110-20M MY2020

Boom Position Sensor, Theory of Operation:

The boom position sensor system (BPS) is an autonomous system that facilitates the safe stowage of the boom into the boom rest. As the operator swivels the boom aft by operating the boom control valve, the BPS causes the boom swivel function to slow when the boom is approximately 2' from the boom rest, and stops the boom when aligned with the boom rest cradle. The system consists of two (2) proximity switches located beneath the boom swivel, a hydraulic manifold on the boom frame, and an electrical harness connecting the proximity switches and manifold to the tractor power plug. As the boom swivels aft, the outboard switch (proximity switch #1) senses the boom swivel, and commands the hydraulic manifold to slow the swivel speed, allowing the operator to have more control when stowing the boom. Upon the boom swivel indexing the inboard switch (proximity switch #2), the manifold stops the swivel, with boom aligned over the boom rest cradle. Then the operator can lower the boom into the boom rest cradle.

Installation of the System:

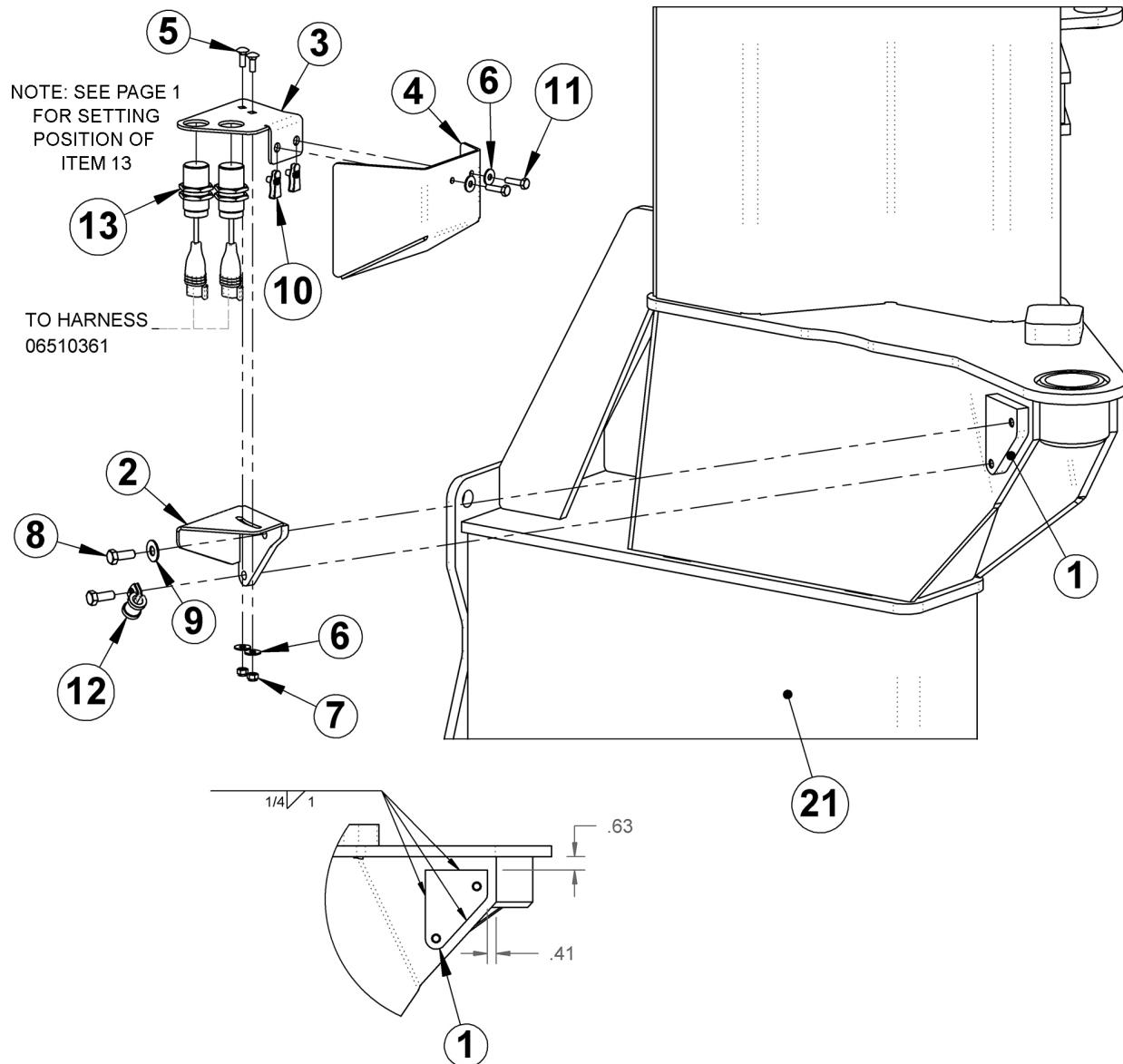
- 1) Swivel the boom forward away from the boom rest. Install the manifold and hoses as shown on the following pages.
- 2) Install the mount, Item 2 onto the boom frame.
- 3) Next, install the bracket, Item 3 to Item 2, but only snug the fasteners, Items 5 and 7.
- 4) Install the proximity switches, Item 13 into the bracket, and adjust the spacing between the upper ends of both switches and the base of the swivel to 3/8 inches (see photo).
- 5) Remove the lower bolt, Item 8 securing Item 2, route the cable on the sensors through the clamp, Item 12, and secure with bolt, Item 8.
- 6) Stow the boom into the boom rest. Connect the harness to the tractor power outlet inside the cab, the manifold, and the proximity switches. Connectors on harness marked Valve 1, 2, & 3 connect to valves on manifold marked SV1, SV2, & SV3, respectively. Connectors on harness marked Prox 1 and Prox 2 connect to the outboard and inboard proximity switches, respectively.
- 7) Now, turn the tractor IGNITION switch to ON (do not start tractor), and slide the bracket, Item 3 inboard and confirm the LED on the bottom of the inboard switch (#2) is NOT ON. If when sliding the bracket inboard, the inboard switch LED will not turn OFF, then increase the gap between the proximity switches and the bottom of



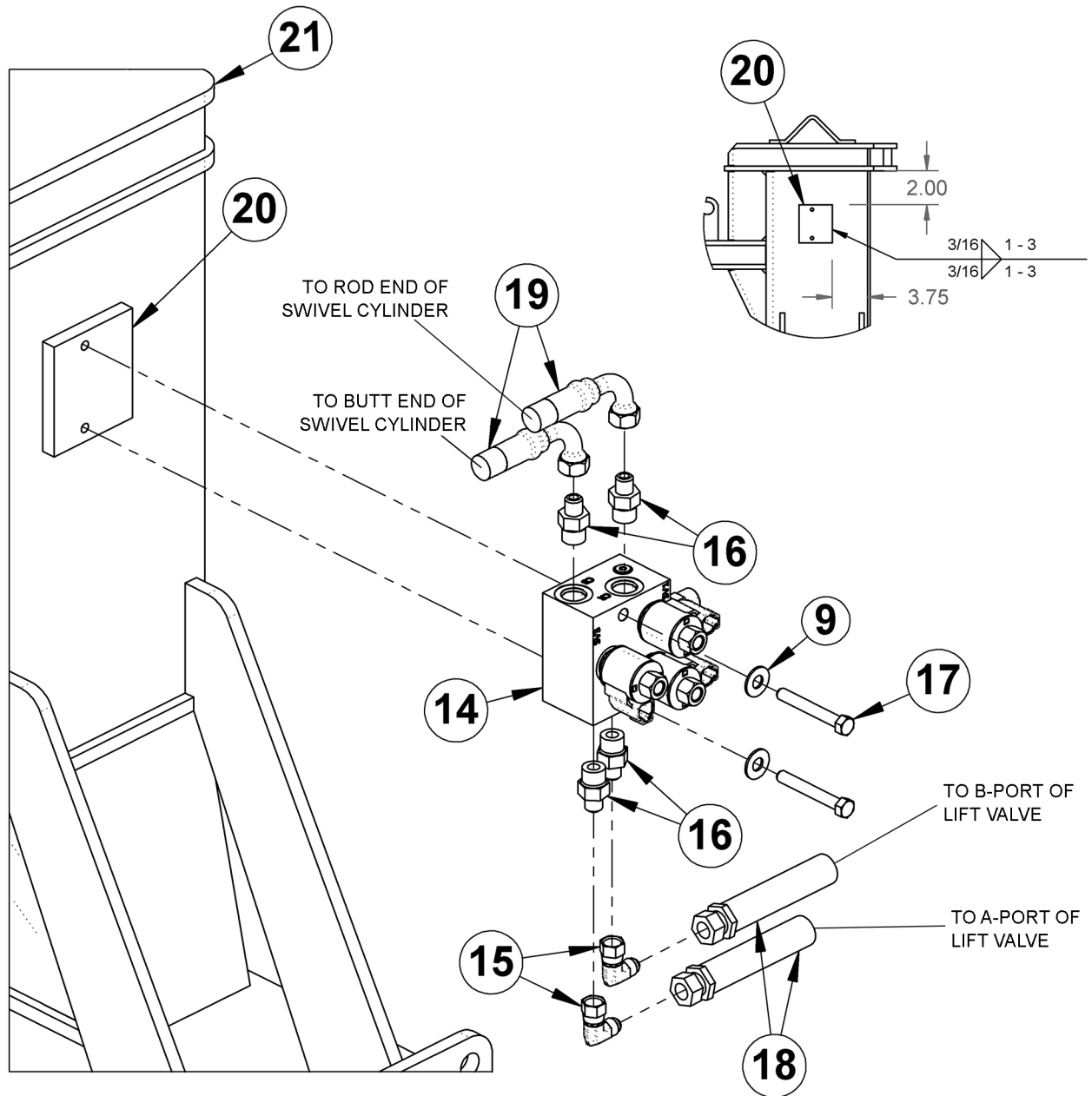
Adjust proximity switches to be 3/8" from the bottom of the swivel.

the swivel by 1/16 inch. Then shift bracket inboard again and confirm LED turns OFF.

- 8) Next, slowly slide the bracket outboard until the LED on the inboard switch turns ON. This position is the theoretical STOP position for the boom. If the LED does not turn ON, then decrease the gap between the proximity switches and the bottom of the swivel by 1/16 inch. Then slide the bracket outboard until the LED on the inboard sensor turns ON.
- 9) Now, start tractor, unstow boom, swivel boom FORWARD, then swivel boom slowly AFT until boom STOPS. Confirm the boom aligns with the cradle of the boom rest. If not, swivel boom forward, turn tractor OFF, and reposition the bracket slightly as needed, and test again.
- 10) Upon completing the adjustment of the bracket, tighten fasteners, Items 5 and 7 and install cover, Item 4 as shown on page 2.



ITEM	P/N	DESCRIPTION	QTY
1	06403794	BASE,LIMIT,SWIVEL,JD6M	1
2	06380116	MNT,LIMIT,SWIVEL,JD6M	1
3	06412760	BRKT,LIMIT,SWIVEL,JD6M	1
4	06412761	COVER,LIMIT,SWIVEL,JD6M	1
5	06537060	CARRIAGE BOLT,1/4x3/4,NC	2
6	22014	FLATWASHER,1/4,GR8	4
7	21527	HEX NUT,NYLOCK,1/4" NC	2
8	21630	CAPSCREW, 3/8 x 1,NC	2
9	22016	FLATWASHER,3/8",GR8	3
10	35176	U-NUT,1/4,3/4 TO CENTER	2
11	21530	CAPSCREW,1/4x1,NC,GR8	2
12	06520535	CLAMP,5/8,INS,3/8HOLE	1
13	06510361	SWITCH,BOOM POSITION SENSOR	2



ITEM	P/N	DESCRIPTION	QTY
14	06502220	MANIFOLD,BPS (BENGAL)	1
	06502221	MANIFOLD, BPS (WILDKAT)	1
15	06503030	ELBOW,3/8MJx3/8FJX	2
16	33271	ADAPTER, 1/2" x 3/8"	4
17	21637	CAPSCREW, 3/8 x 2 3/4,NC	2
18	06501306	HOSE,#4x188(6FJXx6FJX90)	2
19	06500450	HOSE,#4x42(6FJXx6FJX90)	2
20	06403883	MNT	1
21	06300480	MAINFRAME	1

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If you or your dealer have questions or concerns which the dealer is unable to resolve, please contact Tiger Corp. 1-800-843-6849. A representative will assist you with your repairs or replacement.