

Besler Industries Inc.

INSTALLATION AND SETUP MANUAL

**3000 SERIES BALE LOADER
LIVE HYDRAULIC SYSTEM**

INSTALLATION INSTRUCTIONS

- 1) Remove truck box from truck.
- 2) Measure "LENGTH A" (See Diagram 1) of flat bed. Add 2-1/2" to "LENGTH A" and use this measurement from the back of the truck cab to remove excess length from the truck frame. (Save the removed pieces for future replacement.)
- 3) Measure diameter of fuel fill tube, if above truck frame, and add 1/2" to diameter. (See diagram 2) (example tube diameter = 2" + 1/2" = 2-1/2")
- 4) Center a tube 2-1/2" x 3" x 1/4" thick x 38-1/2" long at rear set of existing box mounting holes. (See diagram 2, Point C).
**(Use 3" x 3" x 1/4" x 38-1/2" tube if dimension in step 3 is above 2-1/2")
- 5) Drill tube to match existing holes in truck frame. (5/8" diameter).
- 6) Center a tube 2-1/2" x 3" x 1/4" (length to be determined, see note below) at front set of existing box mounting holes. (See diagram 2, Point A).
Note: Tube length is measured from center of existing box mounting hole to center of other existing box mounting hole plus 5".
- 7) Drill tube to match existing holes in truck frame. (5/8" diameter).
- 8) Center a tube (size determined in step 6) at second set of existing box mounting holes. (See diagram 2, Point B).
- 9) Drill tube to match existing holes in truck frame. (5/8" diameter).
- 10) Bolt tubes to truck frame using grade 5, 5/8" x 1-1/2" bolts, flat washers, lock washers and nuts. (See diagram 3).
- 11) Lay a straight edge along and parallel to truck frame. (Front to back).
- 12) Add shims on top side of tubes at Points A B and C to bring straight edge to desired height. (Shim size 3" x 6" x needed thickness.)
- 13) Repeat steps 3 and 7. CHECK FOR PROPER CLEARANCE OF FUEL FILL TUBE.
- 14) Weld shims to tubes all around.
Note: all welding must be done by a professional welder.
- 15) Center Flat Bed on truck leaving 2" to 2-1/2" from back of cab to front of Flat Bed.
- 16) Check side to side for exact measure.
- 17) Double check all measurements and for clearance at rear of truck frame and at the fuel fill tube.
- 18) The hydraulic reservoir assembly is shipped in an angled position for installation and must be repositioned for use. Remove the bolts, lock washers and nuts holding the reservoir up and let it down, checking for proper clearance under the reservoir assembly. Reinstall the bolts, lock washers and nuts and tighten.
Tighten the two bolts in the front of the reservoir assembly.
- 19) Check clearance of hydraulic pan in flat bed and truck frame and fuel tank.
Make any necessary adjustments and start at step 16.
CAUTION: DO NOT WELD ANY PART OF FLAT BED TO TRUCK FRAME.
- 20) Weld tubes and shims to Flat Bed Rails.
Note: all welding must be done by a professional welder.

INSTALLATION INSTRUCTIONS

DIAGRAM 1

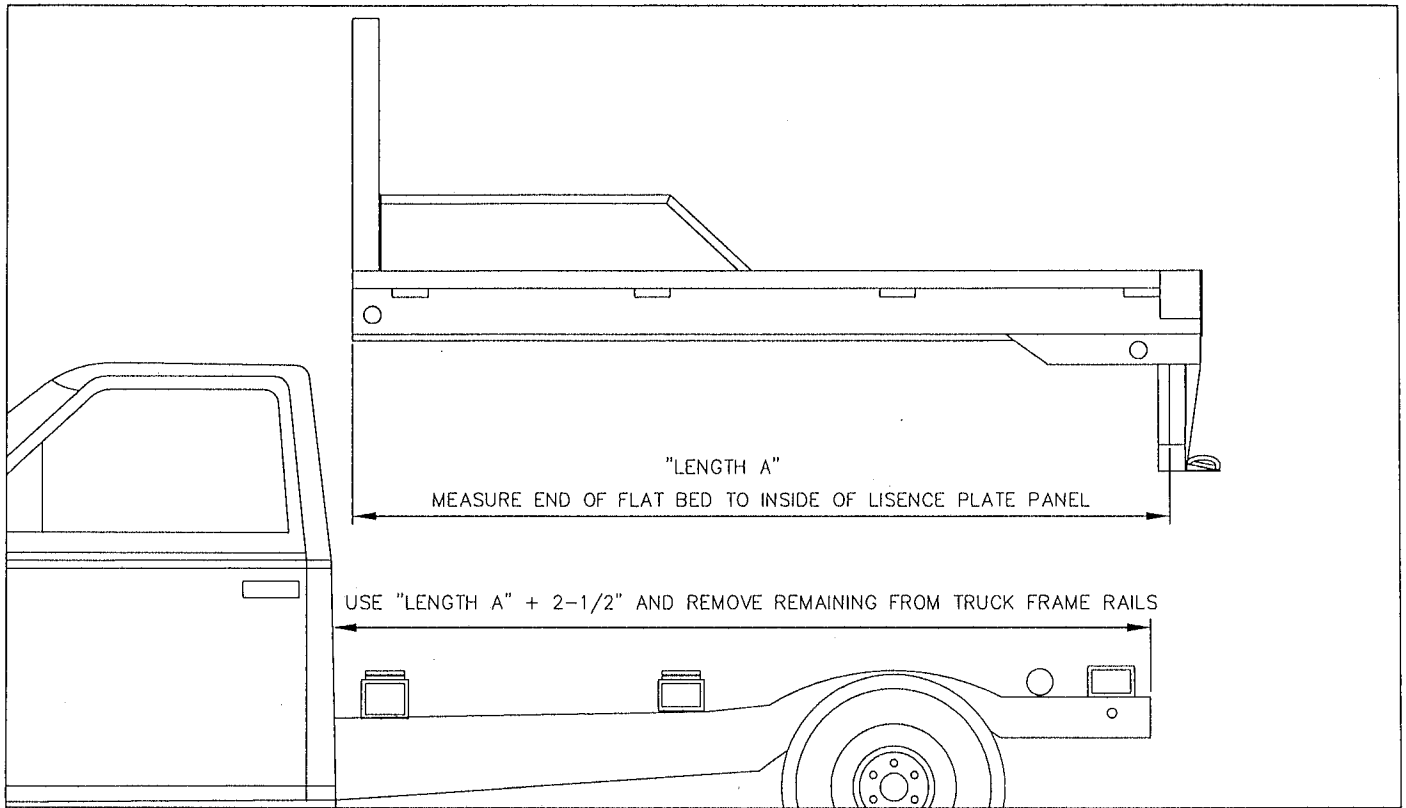
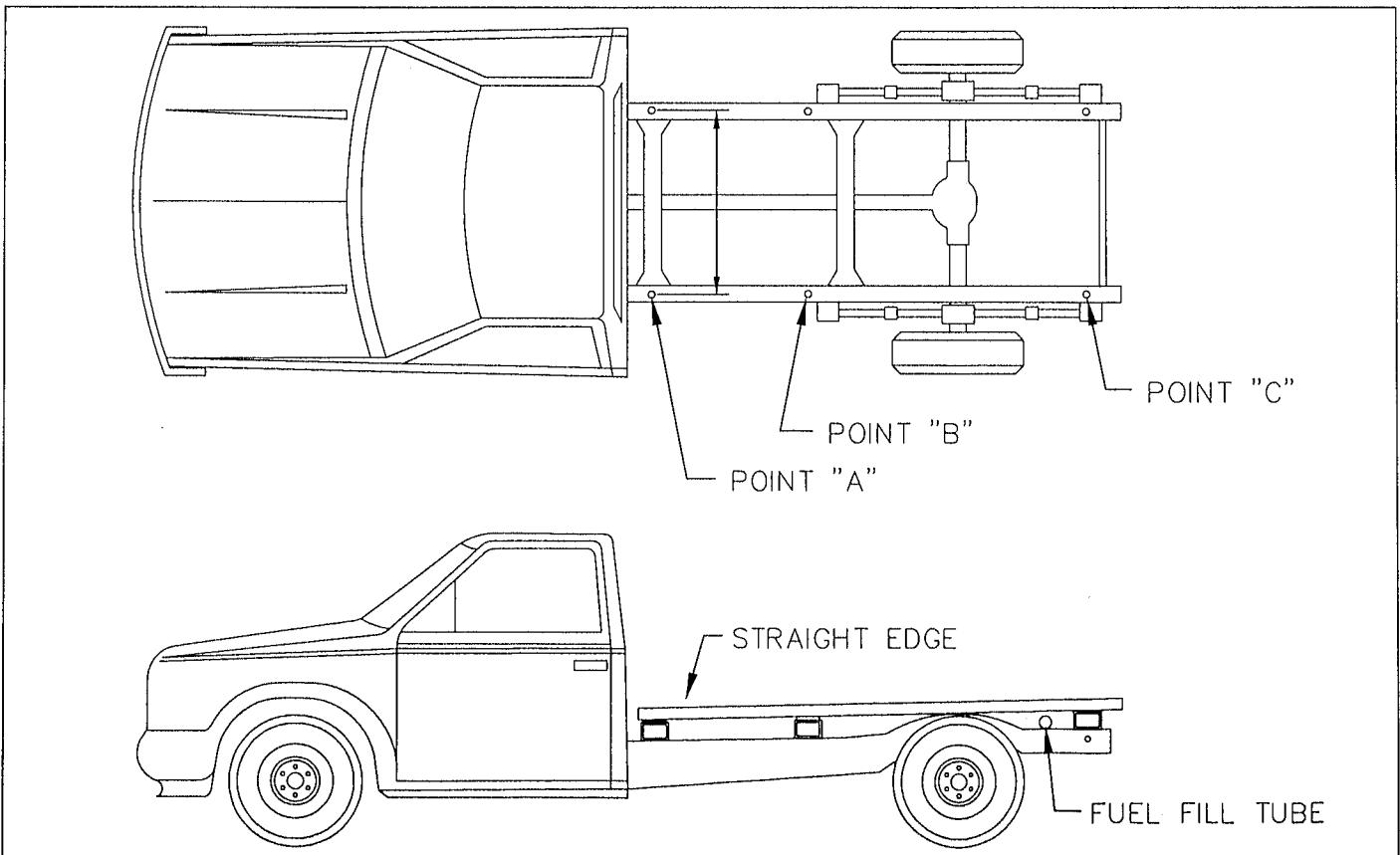


DIAGRAM 2



INSTALLATION INSTRUCTIONS

DIAGRAM 3

NOTE: DIRECTION OF BOLTS, WASHERS AND NUTS
IN TUBES AND TRUCK FRAME.

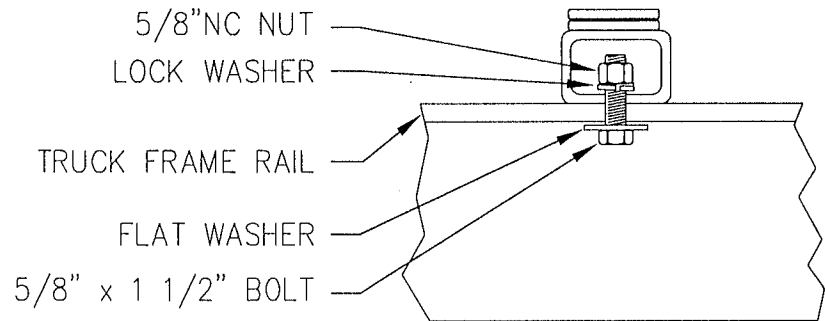
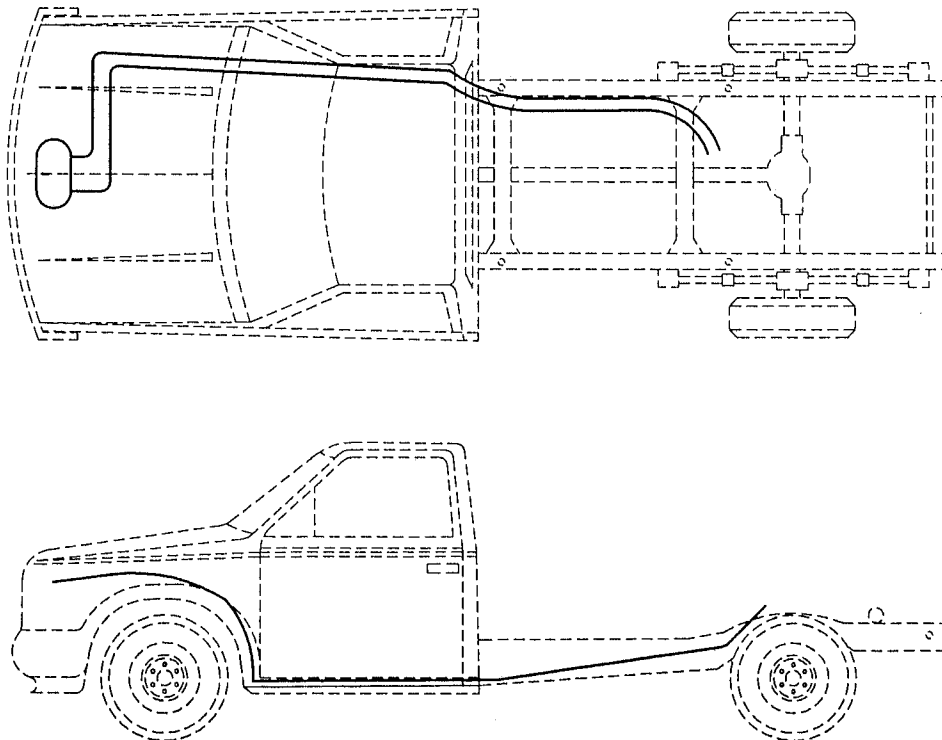
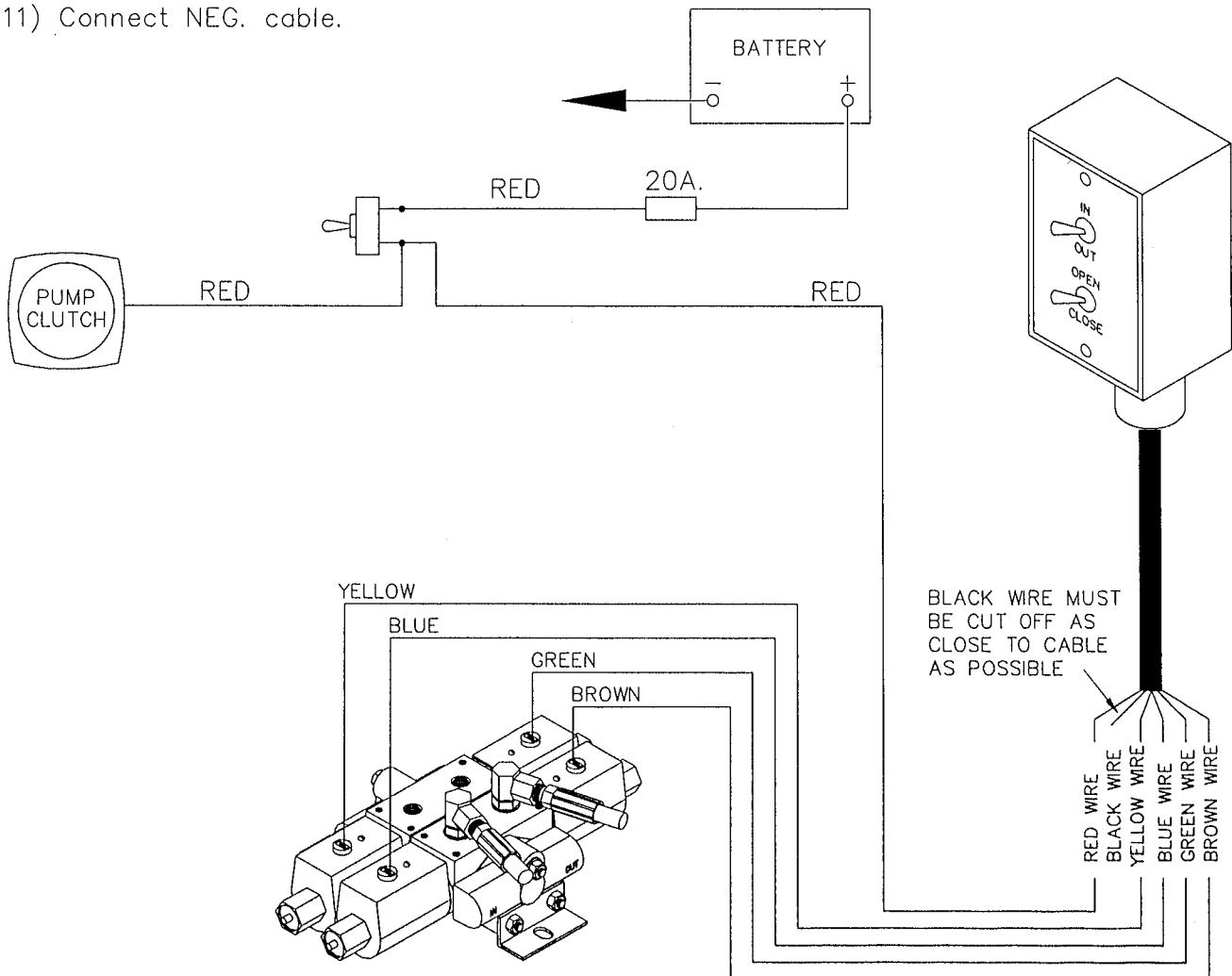


DIAGRAM 4



INSTALLATION INSTRUCTIONS

- 1) Review wiring instructions supplied with your hydraulic pump.
- 2) Remove NEG. battery cable from battery.
- 3) From inside cab, route control box cable through existing hole in floor at rear of cab. Use a hole with a rubber grommet.
- 4) Route cable to truck frame and follow hydraulic hoses to valve assembly in flat bed.
- 5) Power is supplied to toggle switch mounted in cab, (supplied with pump kit) from the battery, power block or from the BAT. side of the starter solenoid.
- 6) A 20A. fuse must be installed between power source and toggle switch.
- 7) From toggle switch, connect and route a RED #12 wire to valve assembly following control box cable and connect to RED lead on control box cable.
- 8) Secure as necessary with cable ties.
- 9) From toggle switch, connect and route a RED #12 wire to pump clutch.
- 10) Black wire on control box cable is not used and must be cut off as close as possible.
- 11) Connect NEG. cable.



INSTALLATION INSTRUCTIONS

Installation of pressure and return hoses.

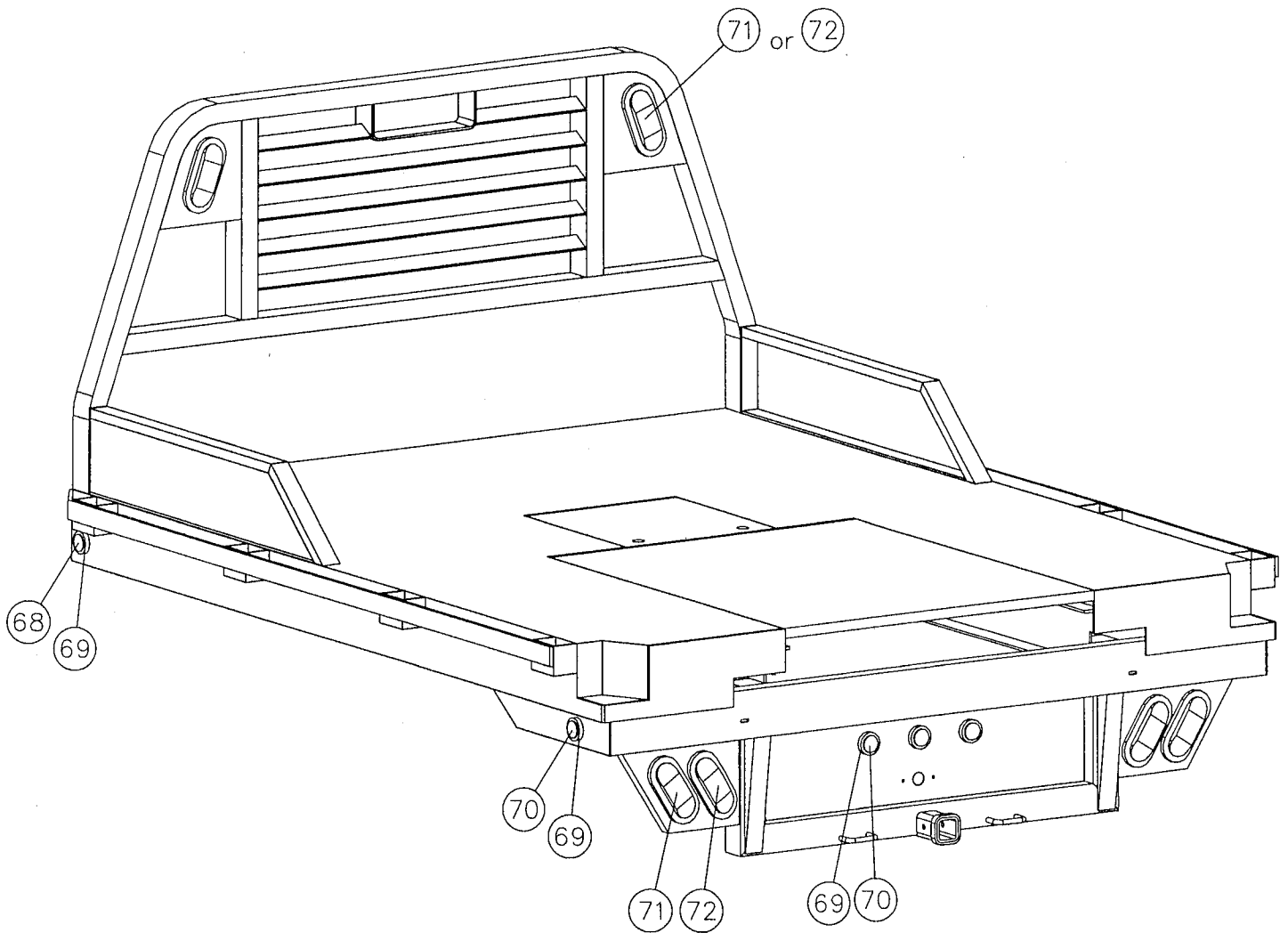
- 1) Use diagram 4 as a guide for installing pressure and return hoses.
Your installation may vary depending on options with your truck, such as air-conditioning and location of alternator.
- 2) Attach appropriate barb fittings to pump and attach pressure and return hoses to fittings.
- 3) To determine pressure and return hose lengths, route hoses starting at hydraulic pump under hood.
- 4) Route hoses to fender well, (right side for most cases) down fire wall and under cab.
- 5) Route hoses along truck frame and exit at valve assembly locations as shown on page 00156.DWG.
- 6) Use ties to secure as needed.
- 7) Attach appropriate barb fittings to valve assembly and reservoir elbow.
- 8) Hold High Pressure hose along fitting at valve assembly, allow extra length for loose fit around corners, cut to length.
- 9) Hold Low Pressure return hose along fitting at reservoir elbow, allow for loose fit, cut to length. Attach clamp supplied with pump kit.
- 10) Remove High Pressure hose and have proper fittings (supplied with kit) crimped on.
- 11) Reinstall High Pressure hose.
- 12) Tighten all connections.
- 13) Fill hydraulic reservoir to full with oil specified with your pump installation instructions.
- 14) Start truck and run at IDLE SPEED.
- 15) Start hydraulic pump with toggle switch located in cab. (ENGINE IDLE SPEED ONLY)
- 16) Cycle hydraulics on bale loader, in and out, open and close, two or three times add oil as needed until all air is removed.
- 17) System should hold approximately 3 to 3-1/2 gallons of hydraulic oil.
- 18) Check for leaks with hydraulic pump running and with hydraulic pump off.
- 19) Recheck all mountings, fittings and electrical connections.

CHANGE HYDRAULIC FILTER AFTER FIRST TWO WEEKS OF USE AND ONCE A YEAR THEREAFTER.

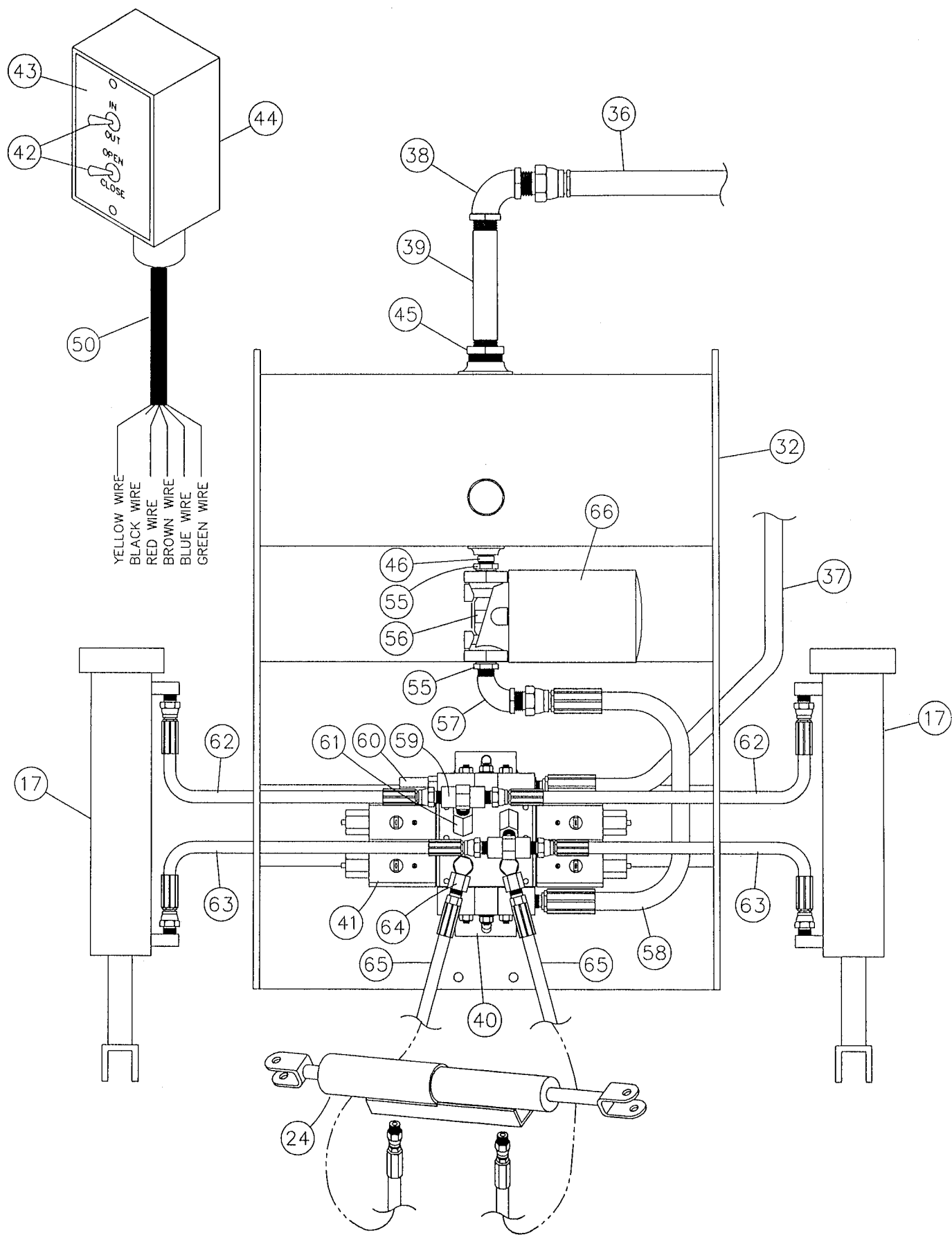
GREASE ALL FITTINGS ONCE A MONTH AS USED.

CHECK OIL RESERVOIR EVERY DAY.

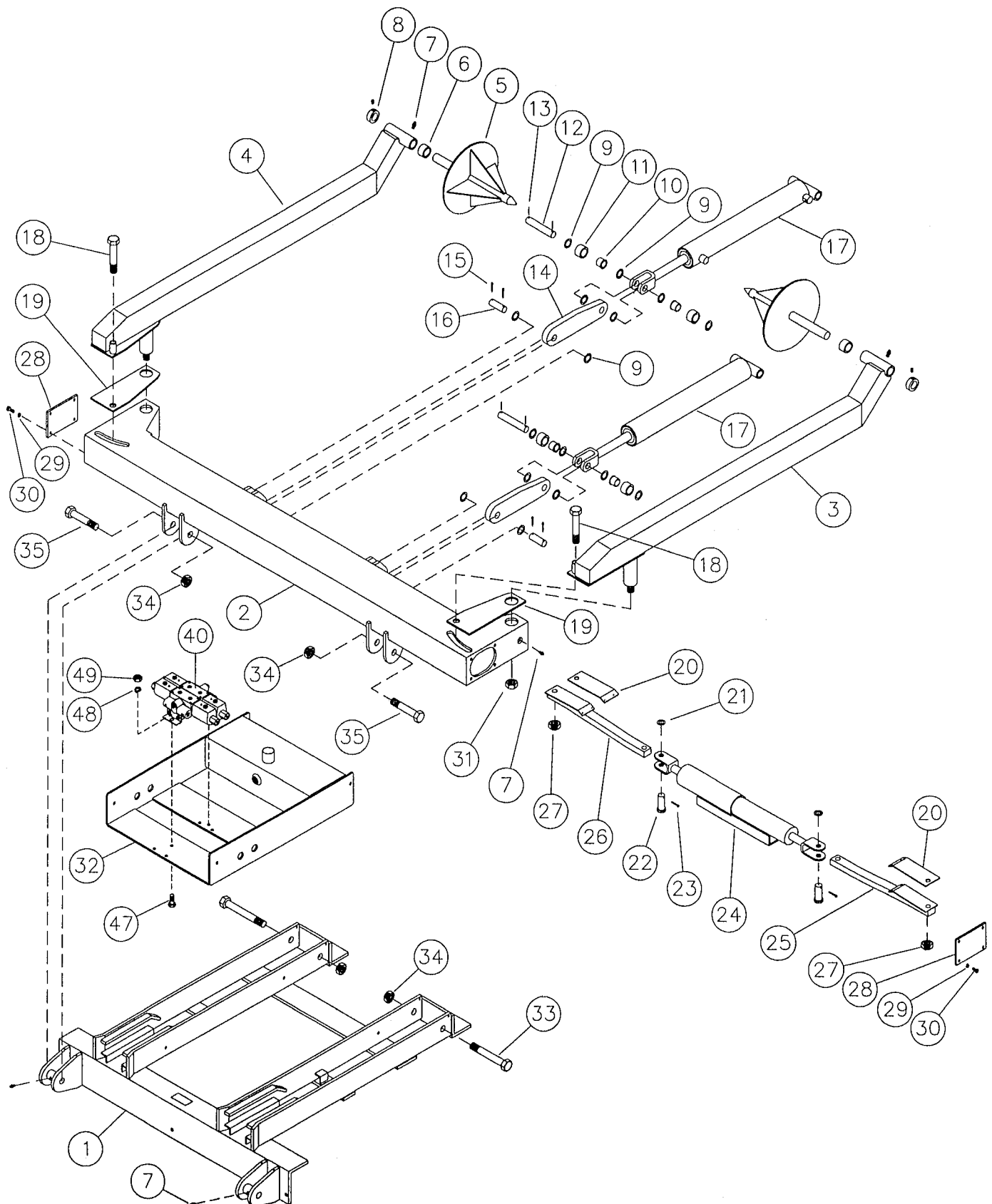
INSTALLATION INSTRUCTIONS



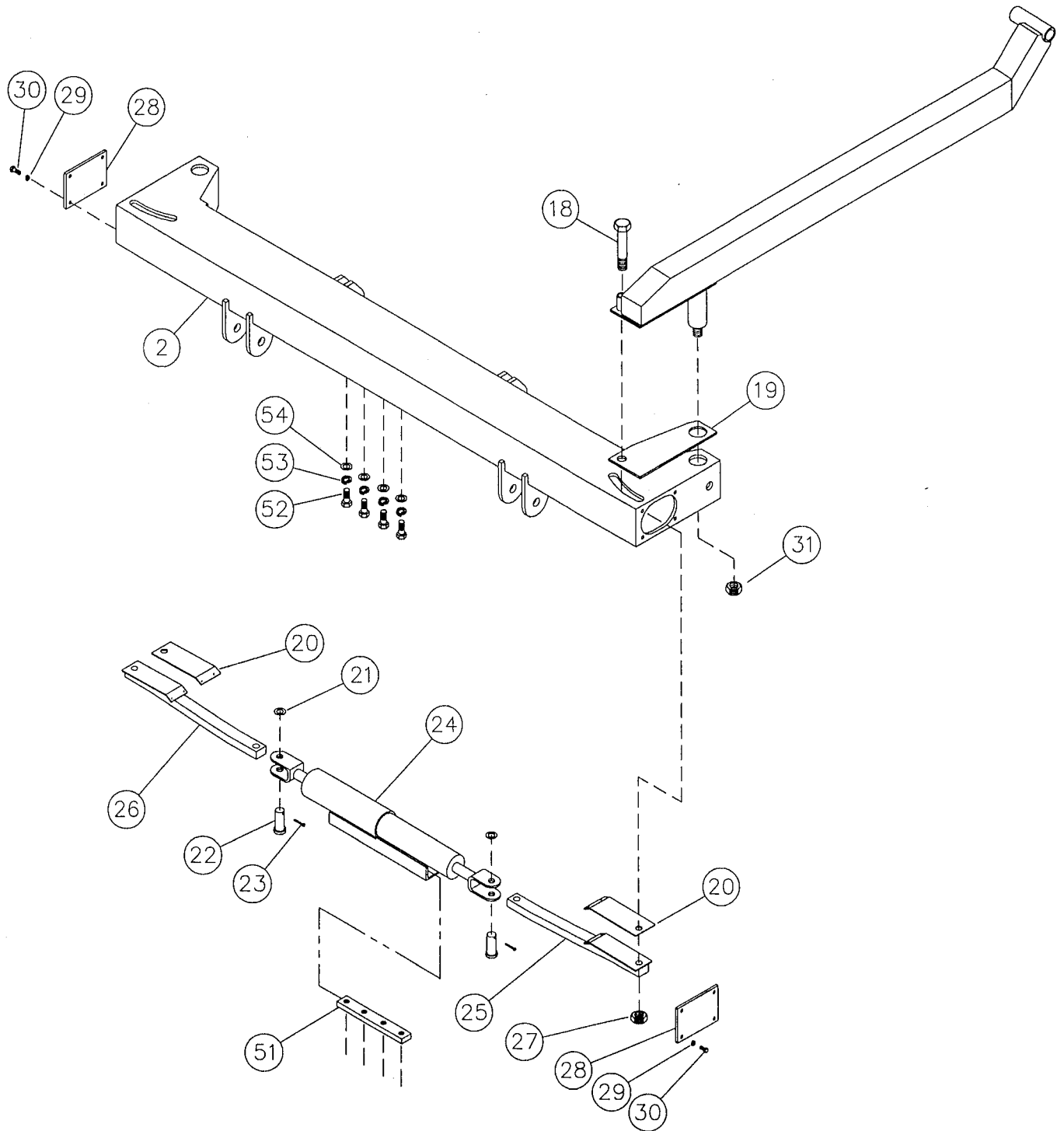
INSTALLATION INSTRUCTIONS



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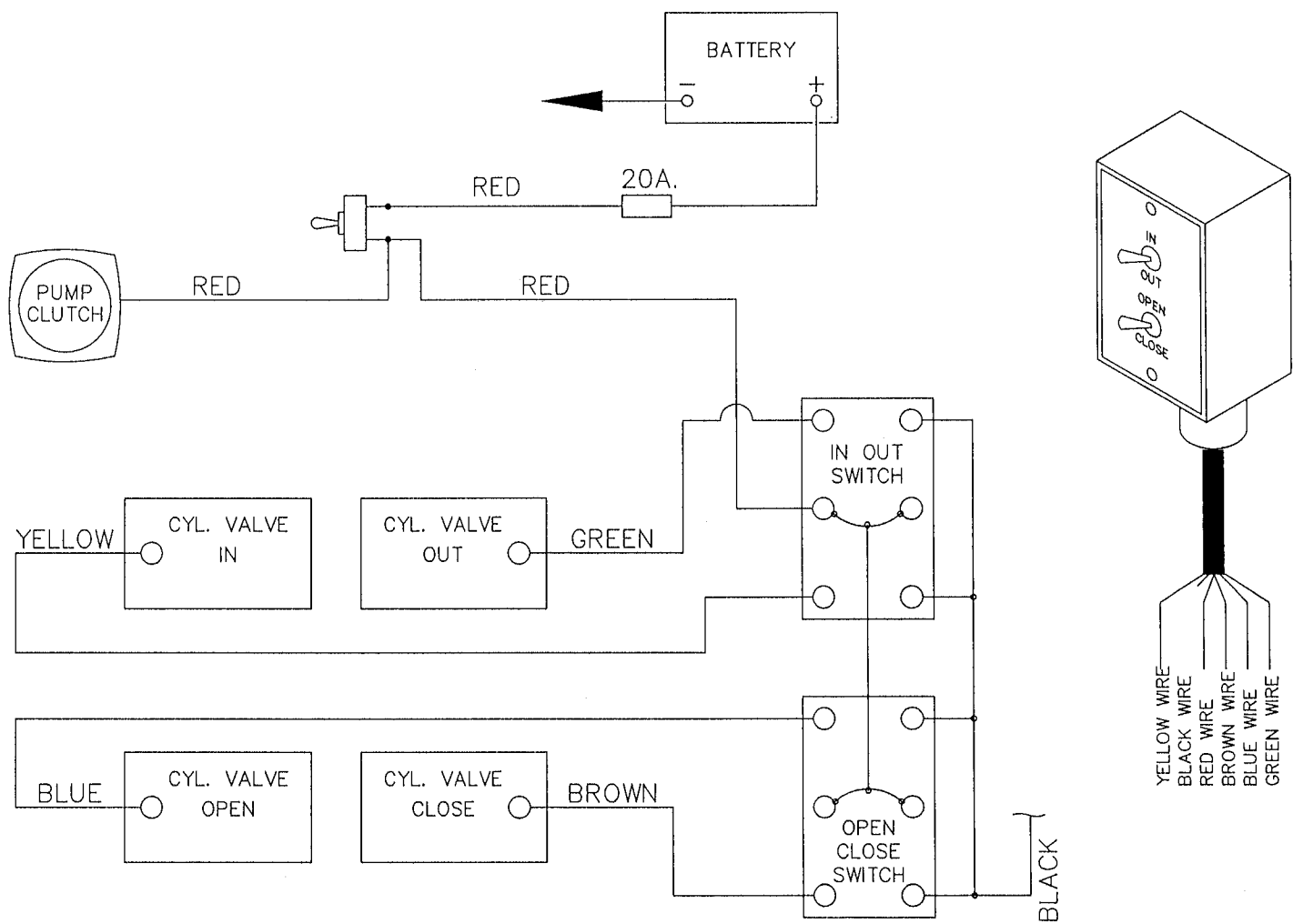
INSTALLATION INSTRUCTIONS

REF. NO.	PART NO.	DESCRIPTION	NO. REQ'D
1	10500	MAIN FRAME —————	1
2	10501	CROSS ARM FRAME —————	1
3	10502	BALE LOADER ARM (RIGHT) —————	1
4	10503	BALE LOADER ARM (LEFT) —————	1
5	10504	UNROLLING SPOOL —————	2
6	10505	SPACER (1-1/4" ID x 1-3/4" OD x 1") —————	2
7	90158	GREASE ZERK (1/4" DRIVE ON) —————	4
8	90102	LOCK COLLAR 1-1/4" (INCLUDE SET SCREW) —————	2
9	10506	MACHING BUSHING (1" ID x 1-1/2" OD x .037 THICK) —	16
10	10507	FLANGED NYLON BEARING (1" ID x 1-1/4" OD x 1") —	4
11	10508	ROLLER (1-1/4" ID x 1-3/4" OD x 1") —————	4
12	10509	HEADLESS PIN (1" x 5-1/2") —————	2
13	90103	ROLL PIN (1/4" x 1-1/2") —————	4
14	10510	FLOAT ARM —————	2
15	90104	COTTER PIN (3/16" x 1-1/2" LONG) —————	4
16	10511	HEADLESS PIN (1" x 2-3/4") —————	2
17	10512	HYDRAULIC CYLINDER (3" x 20") —————	2
18	10513	BOLT (1"NC x 5-3/8", HEX)(7-1/2" CUT TO 5-3/8")	2
19	10514	NYLON SPACER —————	2
20	10515	NYLON SPACER (INCLUDE SCREWS) —————	2
21	10516	MACHINE BUSHING (3/4" ID x 1-1/4" OD) —————	2
22	10517	CLEVIS PIN (3/4 x 2-1/2") —————	2
23	90105	COTTER PIN (5/32" x 1") —————	2
24	10518	HYDRAULIC CYLINDER —————	1
25	10519	CYLINDER EXTENSION BAR (RIGHT) —————	1
26	10520	CYLINDER EXTENSION BAR (LEFT) —————	1
27	90111	NUT (1" NC, DEFORMED) —————	2
28	10522	END CAP —————	2
29	90106	WASHER (5/16" LOCK) —————	8
30	90107	BOLT (5/16"NC x 3/4", HEX) —————	8
31	90108	NUT (1" NF, NYLON INSERT) —————	2
32	10664	TANK KIT 1.5 GAL. —————	1
33	90117	BOLT (1"NC x 7-1/2", HEX) —————	2
34	90111	NUT (1"NC, DEFORMED) —————	4
35	10524	BOLT (1"NC x 5-1/8", HEX)(1" x 7" CUT TO 5-1/8") —	2

INSTALLATION INSTRUCTIONS

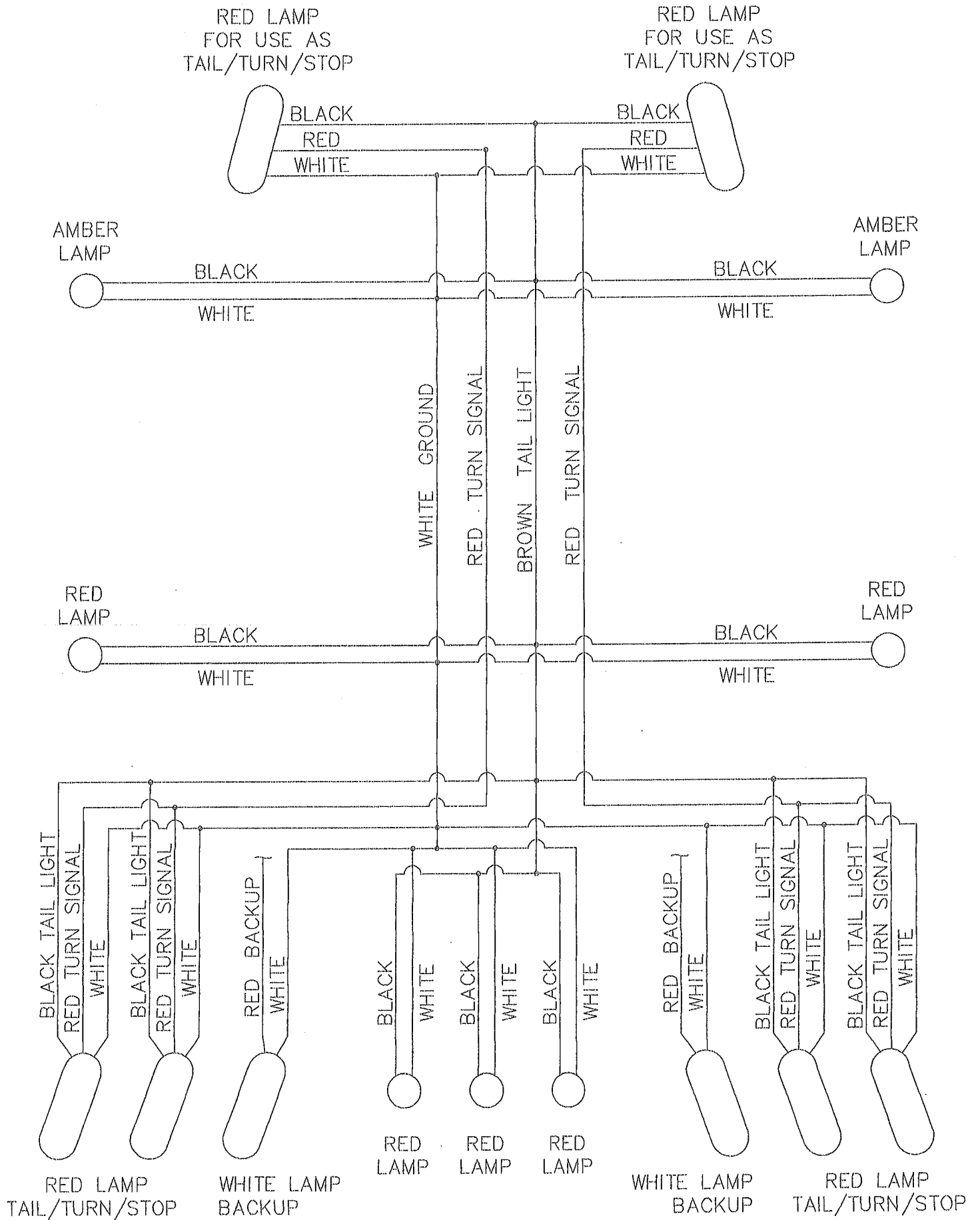
REF. NO.	PART NO.	DESCRIPTION	NO. REQ'D
36	----	HOSE, LOW PRESSURE RETURN (SUPPLIED WITH PUMP KIT)	1
37	----	HOSE, HIGH PRESSURE (SUPPLIED WITH PUMP KIT)	1
38	MI-10250	3/4"-90 DEGREE REG. ELBOW	1
39	MT12058	3/4"-6 CLOSE BLK PIPE NIPPLE	1
40	10528	MINI PACK VALVE 9 VOLT	1
41	10529	SOLENOID (MINI PACK VALVE)	4
42	10530	TOGGLE SWITCH	2
43	10531	SWITCH PLATE	1
44	10532	CONTROL BOX	1
45	TP45100	1 X 3/4 HEX REDU BUSHING	1
46	MI-12000	1/2 CLOSE BLK PIPE NIPPLE	1
47	90120	BOLT (3/8"NC x 1", HEX)	2
48	90121	WASHER (3/8" LOCK)	2
49	90118	NUT (3/8" NC, HEX)	2
50	10534	CONTROL CORD (14 FT.)	1
51	10535	5/8"NF THREADED PLATE	1
52	90122	BOLT (5/8" NF x 1 1/4", HEX, grade 8)	4
53	90186	WASHER (5/8" LOCK)	4
54	90124	WASHER (5/8" FLAT)	4
55	TP44800	3/4 X 1/2 HEX REDU BUSHING	2
56	10926	XXXAR4 ADAPTER	1
57	MI-12400	1/2-90 STREET ELBOW	1
58	10575	HOSE ASSEMBLY 6 X 20.00	1
59	90214	PC - MALE PIPE TEE 5604-04-04	2
60	10711	RELIEF VALVE 2000 PSI	1
61	90216	PC- ORB VALVE 6405-06-04	2
62	10537	HOSE ASSEMBLY 4 X 42.75	2
63	10563	HOSE ASSEMBLY 4 X 38.50	2
64	90218	PC VALVE FITTING	2
65	10538	HOSE ASSEMBLY 4 X 30.00	2
66	10814	OIL FILTER - LIVE HYD. SYS.	1
--	10591	HOSE KIT - 3000 LIVE HYD. (INCLUDE one #58, 2ea. #62, #63, #65)	
68	10795	LIGHT CLEARANCE AMBER	2
69	10794	LIGHT GROMMET	7
70	10793	LIGHT CLEARANCE RED	5
71	12103	TAIL/STOP LIGHT RED	4
72	90254	LIGHT CLEAR 2-1/4 X 6-1/2	2

INSTALLATION INSTRUCTIONS



INSTALLATION INSTRUCTIONS

WIRING SCHEMATIC



BESLER INDUSTRIES, INC.

BESLER BALE BED & BALE UNROLLER TWO YEAR LIMITED WARRANTY

STATEMENT OF WARRANTY

(1) WHAT IS COVERED BY THIS WARRANTY:

Besler Industries, Inc. warrants to the original retail purchaser only, that all equipment, parts and accessories which it manufactures are free from defects in material or workmanship under normal use, service, proper setup and adjustment. The duration of this warranty is two (2) years from date of delivery with some limitations on specific parts as mentioned below.

This warranty is limited to repair or replacement of part or parts, to the original purchaser, found by the manufacturer, through the authorized selling dealer, to be defective in material or workmanship in the warranty period. This warranty shall be effective only when the part or parts have been authorized for return or replacement by Besler Industries, Inc., and returned prepaid by the dealer or purchaser to Besler Industries, Inc. Consult your dealer before removing any parts or making repair. For warranty claim, notify the selling dealer.

(2) WHAT IS NOT COVERED BY THIS WARRANTY:

Besler Industries, Inc., does not warranty: (a) damage caused by use for purposes other than those for which it was designed; (b) repairs made by unauthorized persons; (c) damage caused by neglect, abuse, abnormal use, improper or unreasonable use, accident, or misuse; (d) damages caused by unauthorized attachments, alterations, or modifications; (e) damage caused by improper service, setup or adjustments; (f) Besler Equipment which has had serial numbers removed or made illegible; (g) normal wear; (h) transportation to and from authorized dealer's place of business or Besler Industries, Inc.

(3) LIMITATIONS TO WARRANTY

The following parts are covered under the original warranty for the specified time indicated by each item.

Two (2) Years from time of purchase:

Structure and Welds

One (1) Year from time of purchase:

Cylinders, Valves, Pump, Hydraulic Hoses, Electric Motor

Warning: Low Voltage and/or running motor continuously for excessive periods of time may result in motor damage. This is considered misuse and will not be covered by the manufacturer.

Six (6) Months from time of purchase:

Paint, Wear Plates, Toggle Switches

*Warranty on merchandise not of Besler Industries, Inc., supplied in piece, or in component assemblies will be dependant on the manufactures warranty, some limitations may apply.

(4) DISCLAIMER OF WARRANTY:

The foregoing warranties are in lieu of all other warranties of merchantability and fitness for a particular purpose. Any implied warranty of merchantability or fitness for a particular purpose is limited to the duration of this limited warranty. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

(5) Besler Industries, Inc. reserves the right to improve products through modifications and changes in design or material without being obligated to incorporate such changes in prior manufacture.

(6) WARRANTY REGISTRATION:

The Warranty registration card must be completed and forwarded to Besler Industries, Inc., Box B, Cambridge, NE 69022. Within 10 days following date of purchase. Warranty will not be granted unless a warranty card is on file at Besler Industries, Inc. The date of purchase constitutes delivery.

* Effective 6/01/02