

OPERATOR'S MANUAL

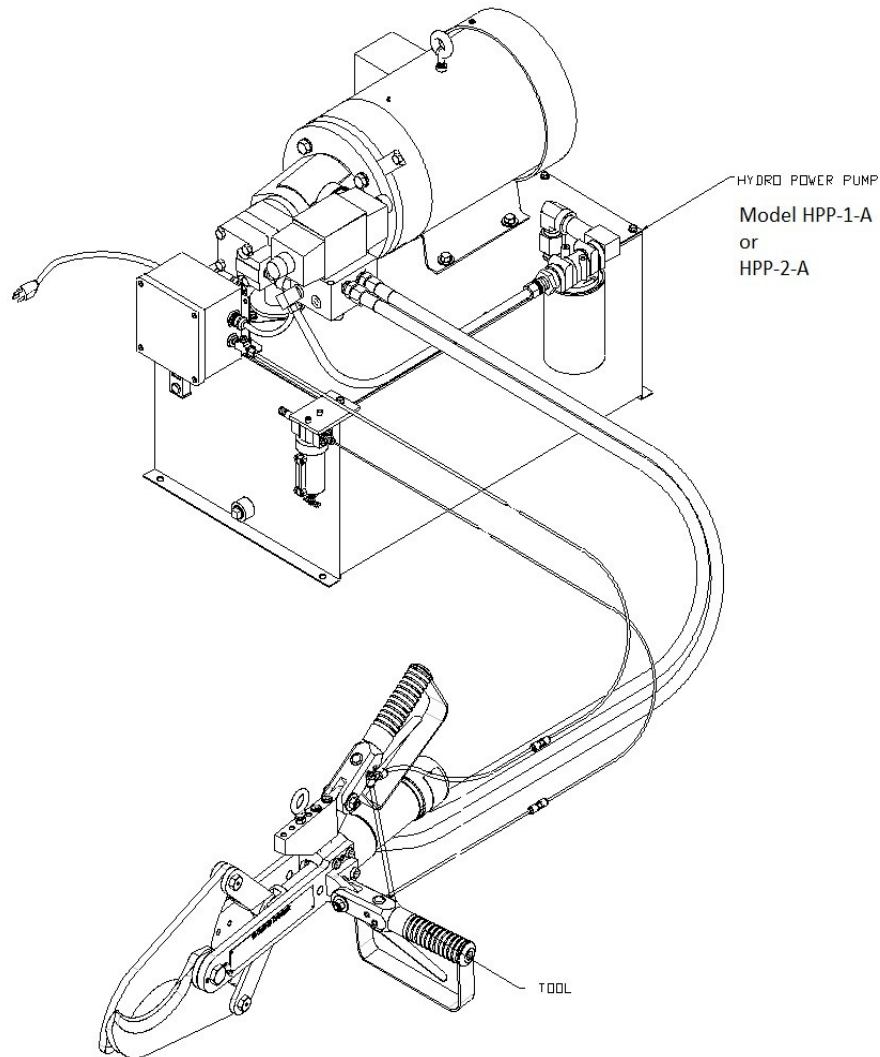
INCLUDING: OPERATION, INSTRUCTION, INSTALLATION, MAINTENANCE AND PARTSBOOK

IMPORTANT: READ THIS MANUAL CAREFULLY BEFORE INSTALLING, OPERATING OR SERVICING THIS TOOL.

HYDRO POWER PUMP "HPP-2-A"

TOOL DATA

MODEL: HPP-2-A
 ASSEMBLY No: 651600
 TYPE: HYDRAULIC PUMP, AIR/ELECTRIC OPERATED
 NET WEIGHT: 250 LBS (114KG) WITHOUT OIL
 HYDRAULIC PRESSURE: 2000 P.S.I. MAXIMUM
 INLET AIR PRESSURE: 90 P.S.I. (6-7) BARS OPTIMAL, (67PSI MIN)



- = Hazards or unsafe practices which could result in severe personal injury, death or substantial property damage.
- = Hazards or unsafe practices which could result in minor personal injury, product or property damage.
- = Important installation, operation or maintenance information.

GENERAL SAFETY INSTRUCTIONS

⚠ WARNING

DO NOT OPERATE THIS TOOL UNTIL YOU HAVE READ AND UNDERSTOOD THE SAFETY INSTRUCTIONS AND OPERATING MANUALS.

⚠ WARNING

DO NOT OPERATE THIS TOOL UNTIL YOU HAVE RECEIVED TRAINING IN THE HANDLING, OPERATION AND USE OF THIS TOOL.

⚠ WARNING

STOP USING A MALFUNCTIONING OR DEFECTIVE TOOL IMMEDIATELY. REPORT ANY PROBLEMS OR DEFECTS TO YOUR SUPERVISOR FOR REMOVAL OF THE TOOL FROM SERVICE.

DO NOT ATTEMPT TO REPAIR THE TOOL YOURSELF.

⚠ WARNING

DO NOT ALLOW UNAUTHORIZED PERSONS TO USE TOOL.

⚠ WARNING

REMOVE AND DISCONNECT POWER FROM THE TOOL WHEN TOOL IS LEFT UNATTENDED OR IS NOT IN USE.

⚠ WARNING

NEVER TIE DOWN, BYPASS, ALTER OR MODIFY THE ACTIVATING SWITCHES OR TRIGGERS OF THIS TOOL.

⚠ WARNING

NEVER MAKE ALTERATIONS OR MODIFICATIONS TO THIS TOOL.

⚠ WARNING

BE CONSTANTLY AWARE AND ALERT FOR UNSAFE CONDITIONS AND REPORT THEM IMMEDIATELY TO YOUR SUPERVISOR.

⚠ WARNING

NEVER PLACE YOUR HAND OR ANY PART OF YOUR BODY IN THE CUTTING PATH OF THE TOOL.

⚠ WARNING

NEVER ALLOW ANYONE ELSE TO PLACE THEIR HANDS OR ANY PART OF THEIR BODY IN THE CUTTING PATH OF THE TOOL.

⚠ WARNING

DO NOT ACTIVATE CONTROL SWITCHES OR TRIGGERS OF THIS TOOL UNLESS YOU INTEND TO TEST OR OPERATE THIS TOOL.

⚠ WARNING

DO NOT USE THIS TOOL FOR ANY PURPOSE OTHER THAN IT'S INTENDED PURPOSE.

⚠ WARNING

WHEN OPERATING THIS TOOL WEAR THE PROTECTIVE GEAR AND SAFETY EQUIPMENT SUPPLIED TO YOU.

⚠ CAUTION

THE NOISE EMISSION (SOUND PRESSURE LEVEL) AT THE WORKSTATION MAY EXCEED 80 dB (A). EAR AND SOUND PROTECTION GEAR IS REQUIRED.

⚠ WARNING

OPERATING INSTRUCTIONS

⚠ WARNING ONLY TRAINED PERSONNEL ARE TO OPERATE THIS TOOL.

1. TO ENSURE TOOL IS OPERATING PROPERLY, PERFORM FOLLOWING STEPS AT START OF EACH SHIFT:
 - MAKE SURE TOOL MOVES UP AND DOWN FREELY WHILE HANGING FROM BALANCER OVERHEAD.
 - WITH POWER TO TOOL TURNED ON, TEST TRIGGER FOR PROPER OPERATION.
 - DEPRESS EACH TRIGGER SEPARATELY. TOOL SHOULD NOT ACTIVATE. DEPRESS BOTH TRIGGERS. TOOL SHOULD ACTIVATE.
 - IF TOOL HAS "ANTI-TIE DOWN" OPTION, BOTH TRIGGERS MUST BE DEPRESSED SIMULTANEOUSLY FOR TOOL TO ACTIVATE.
2. TO PERFORM WORK, HOLD TOOL FIRMLY AT BOTH HANDLES. SQUEEZE TRIGGERS TO ACTIVATE TOOL.
3. POSITION TOOL AND PERFORM CUTTING OPERATION.

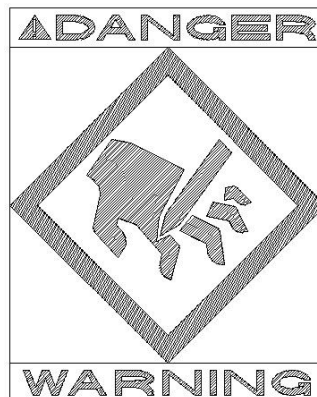
MAINTENANCE

⚠ WARNING ONLY TRAINED AND QUALIFIED PERSONNEL ARE TO PERFORM MAINTENANCE AND SERVICE TO THIS TOOL.

1. MAKE ALL NECESSARY LINE CONNECTIONS TO THE TOOL.
 2. AN AIR FILTER-REGULATOR-LUBRICATOR (PART NO. 7200030) MUST BE INSTALLED IN AIR SUPPLY FOR EACH TOOL.
3. FILL LUBRICATOR WITH KENTMASTER AIR MIST OIL (PART NO. 7903050). SET DRIP RATE ACCORDING TO INSTRUCTIONS SUPPLIED. TURN ADJUSTMENT ON SIGHT FEED DOME TO INCREASE/DECREASE OIL DELIVERY. MONITOR THE DEVICE BEING LUBRICATED AND READJUST IF NEEDED.
 4. TOOL REQUIRES 90 P.S.I. AIR PRESSURE.

SERVICE

1. KEEP GOOD RECORDS OF ALL SERVICE ACTIVITY AND INCLUDE TOOL IN PREVENTIVE MAINTENANCE PROGRAM.
2. USE ONLY GENUINE KENTMASTER REPLACEMENT PARTS TO ASSURE PROPER PERFORMANCE OF TOOL.
3. CONTACT THE KENTMASTER SUPPLIER NEAREST YOU FOR PARTS AND CUSTOMER SERVICE INFORMATION.



PARTS BOOK

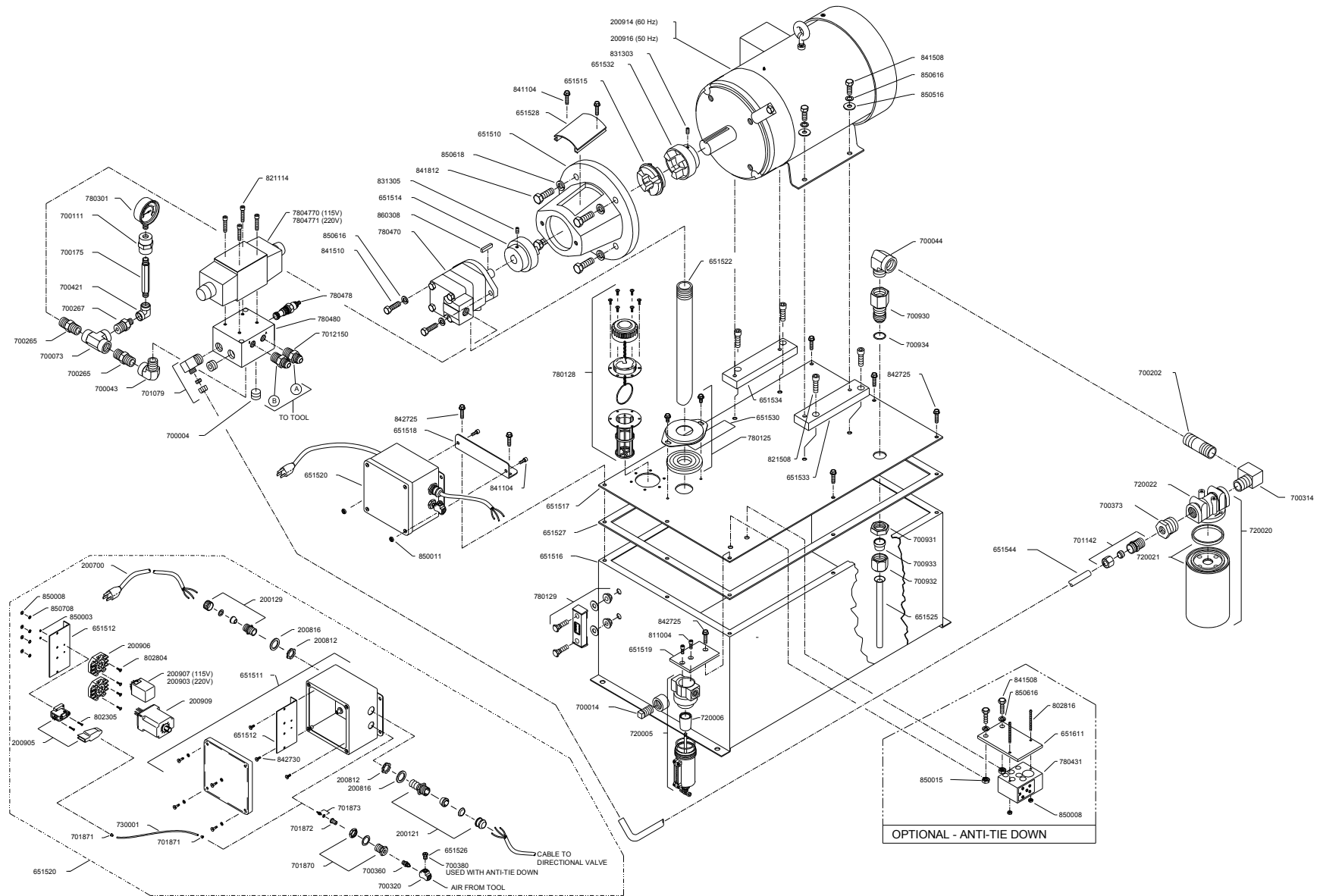


Figure 1 MODEL "HPP-2-A" – MAIN ASSEMBLY

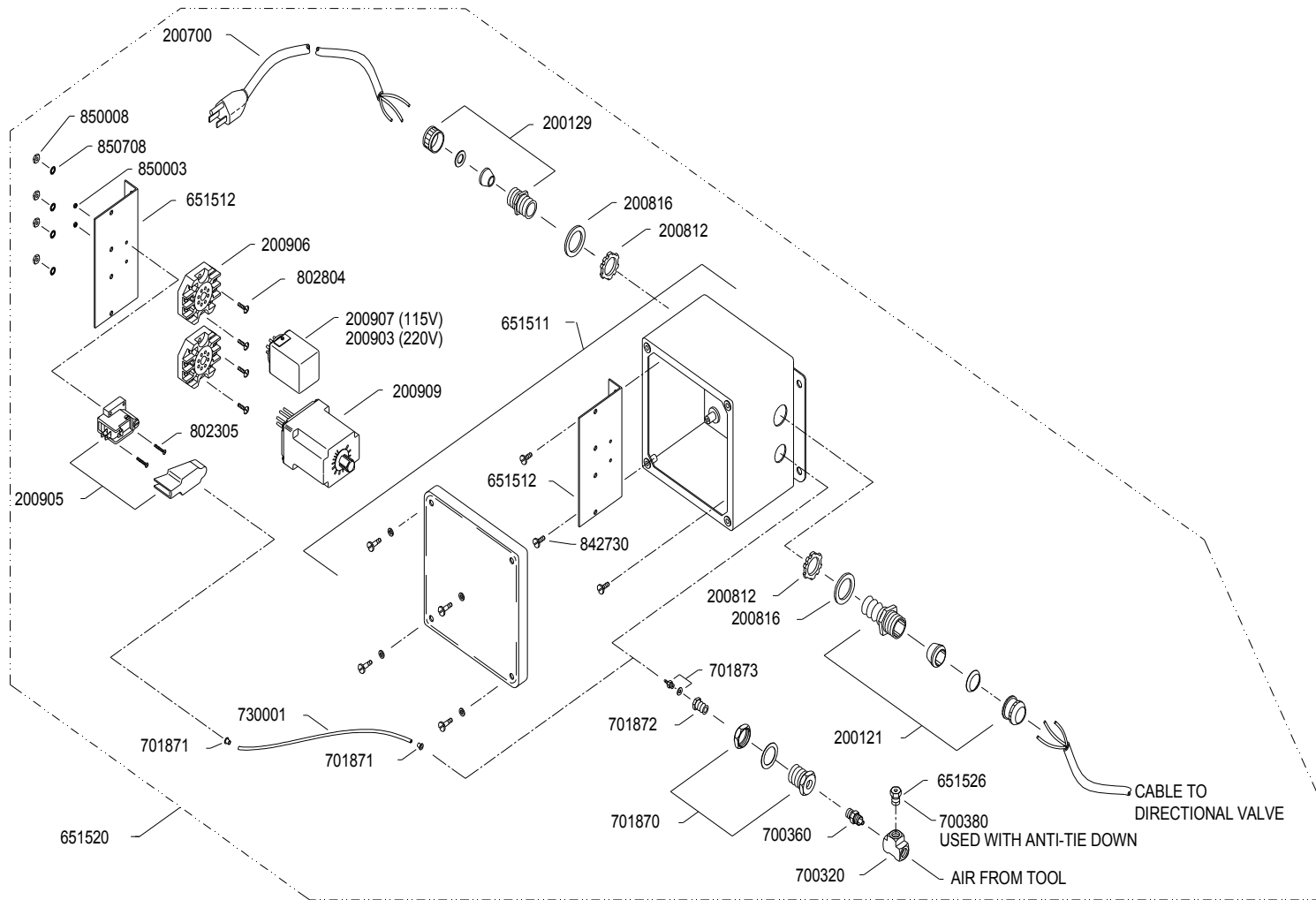


Figure 2 651520: CONTROL BOX

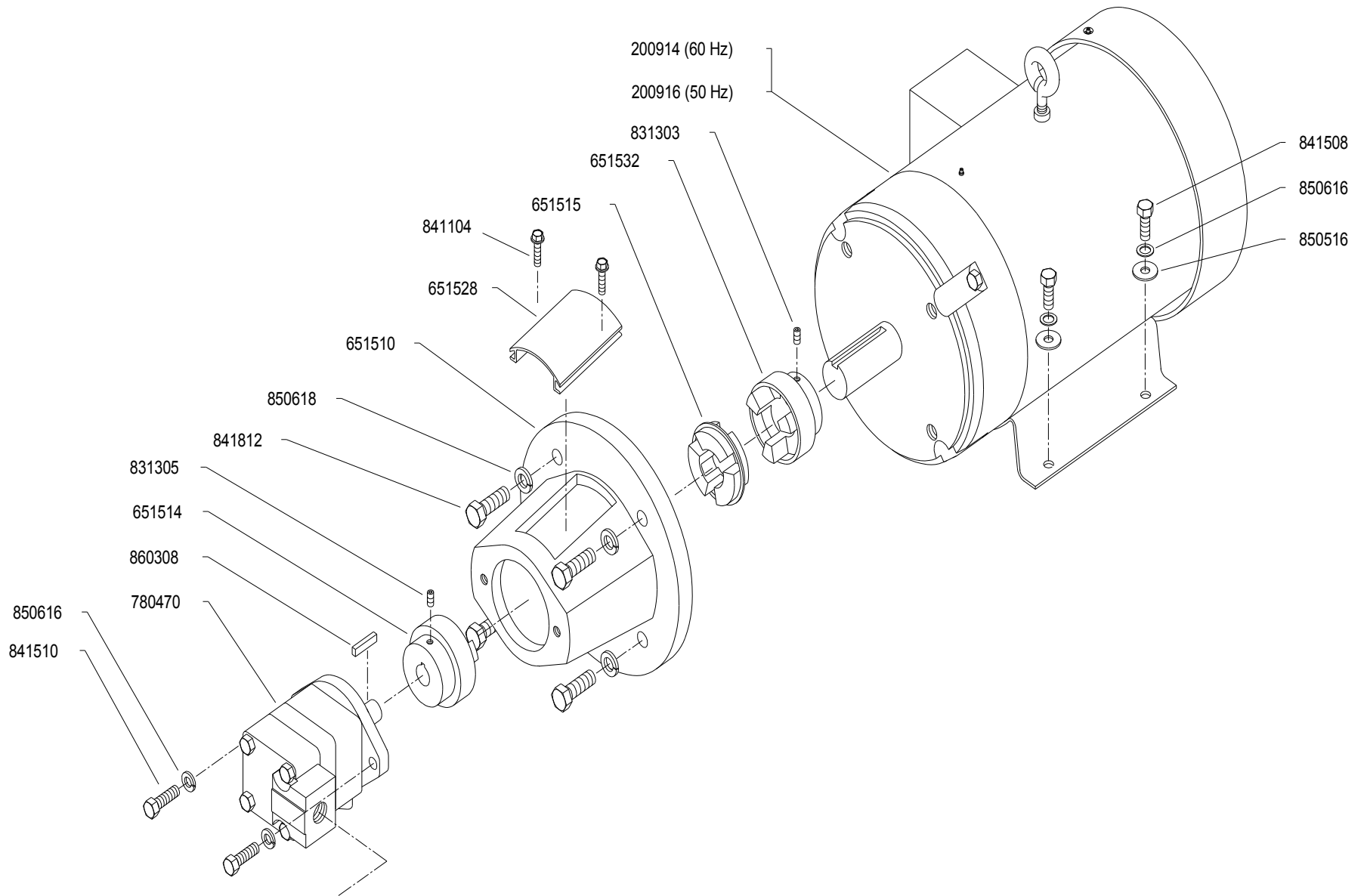
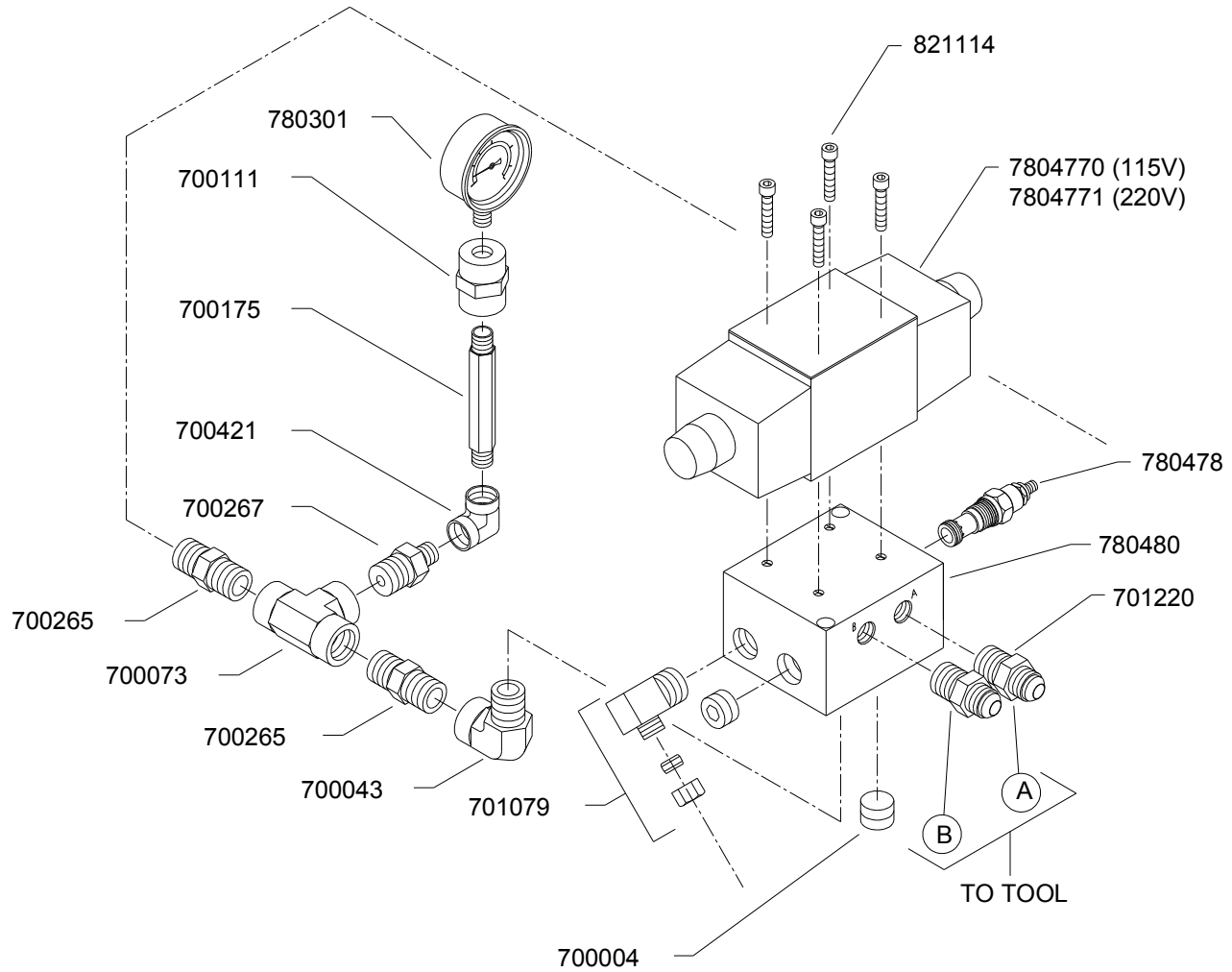


Figure 3 DRIVE ASSEMBLY



Hoses: if connected with M-5 tool use hoses #7303630

Figure 4 CONTROL VALVE

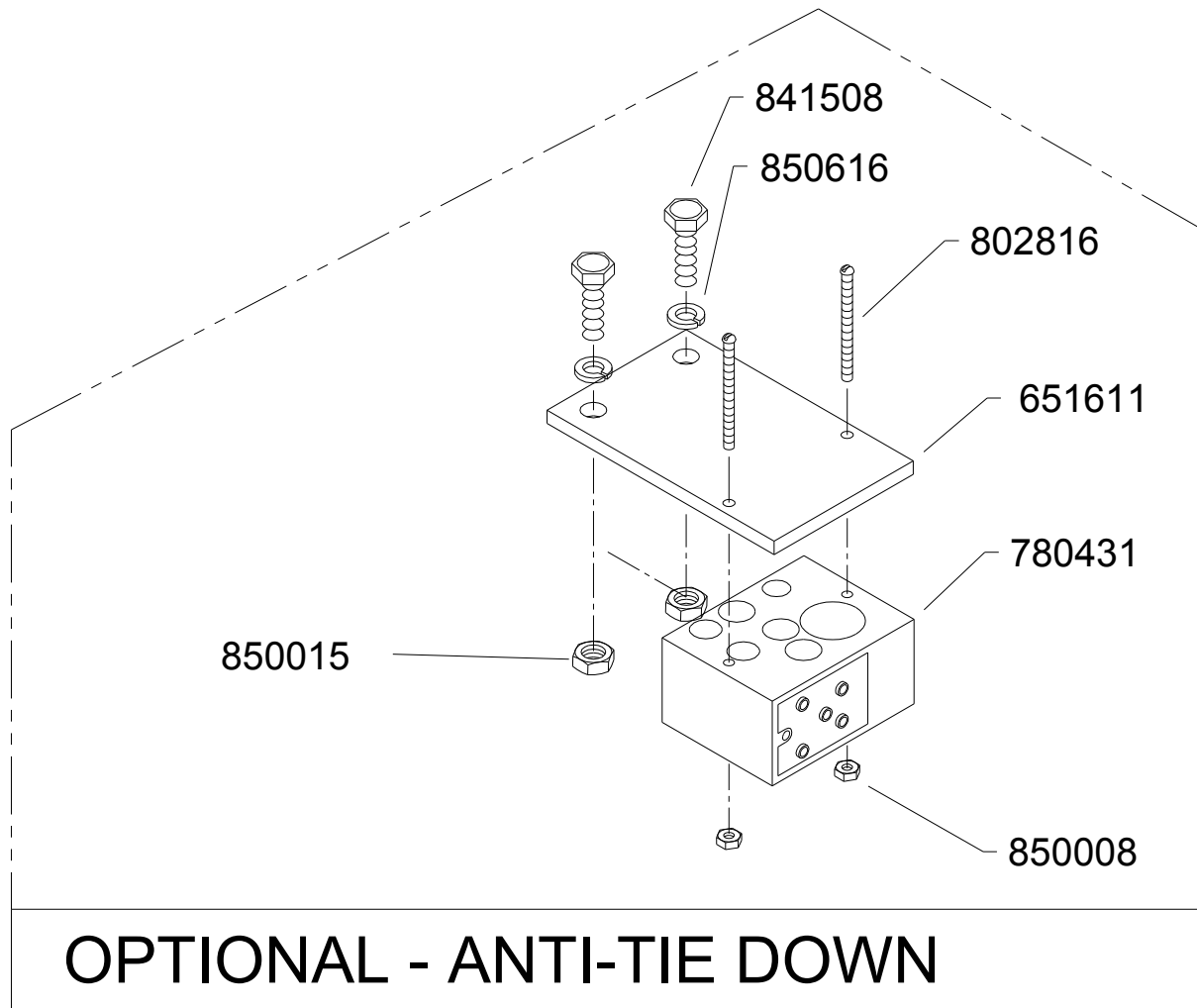


Figure 5 ANTI-TIE DOWN

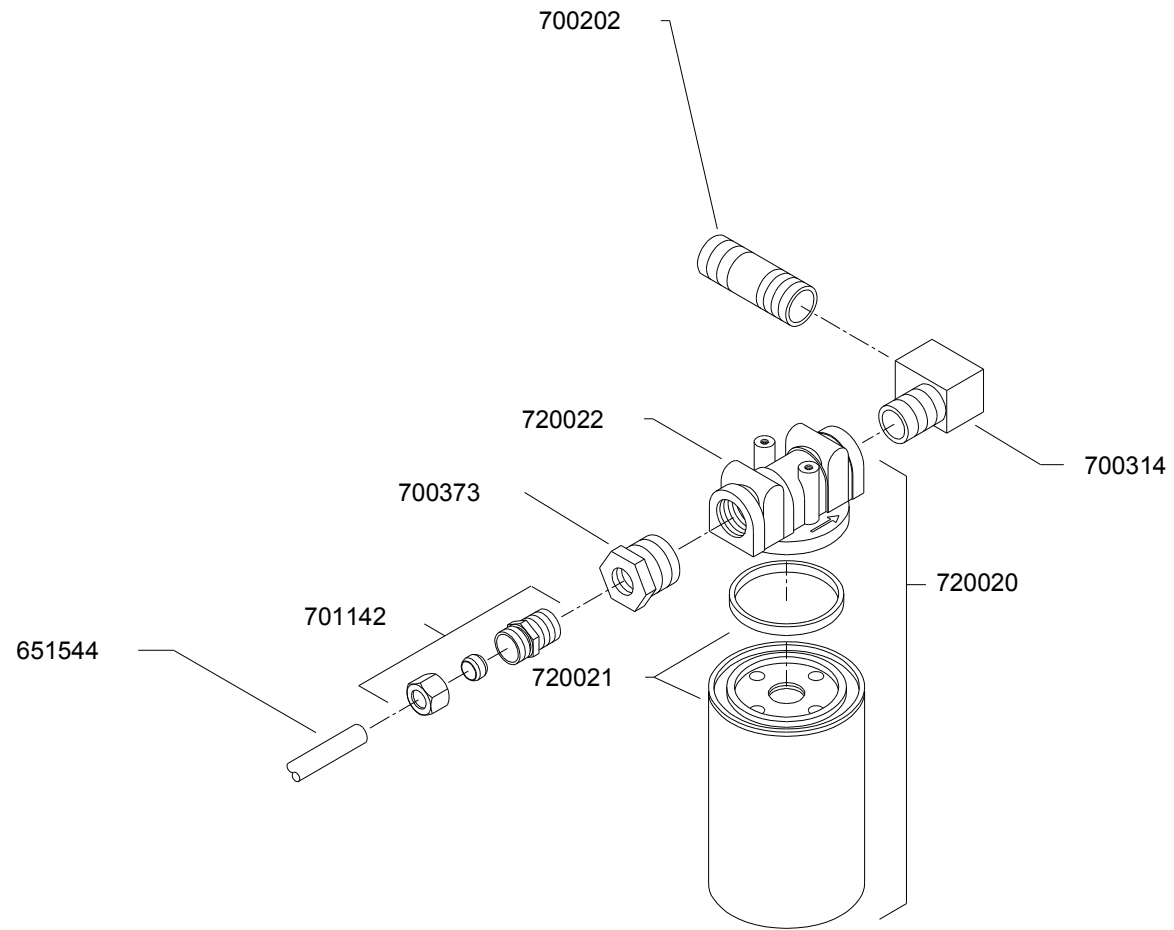


Figure 6 RETURN FILTER

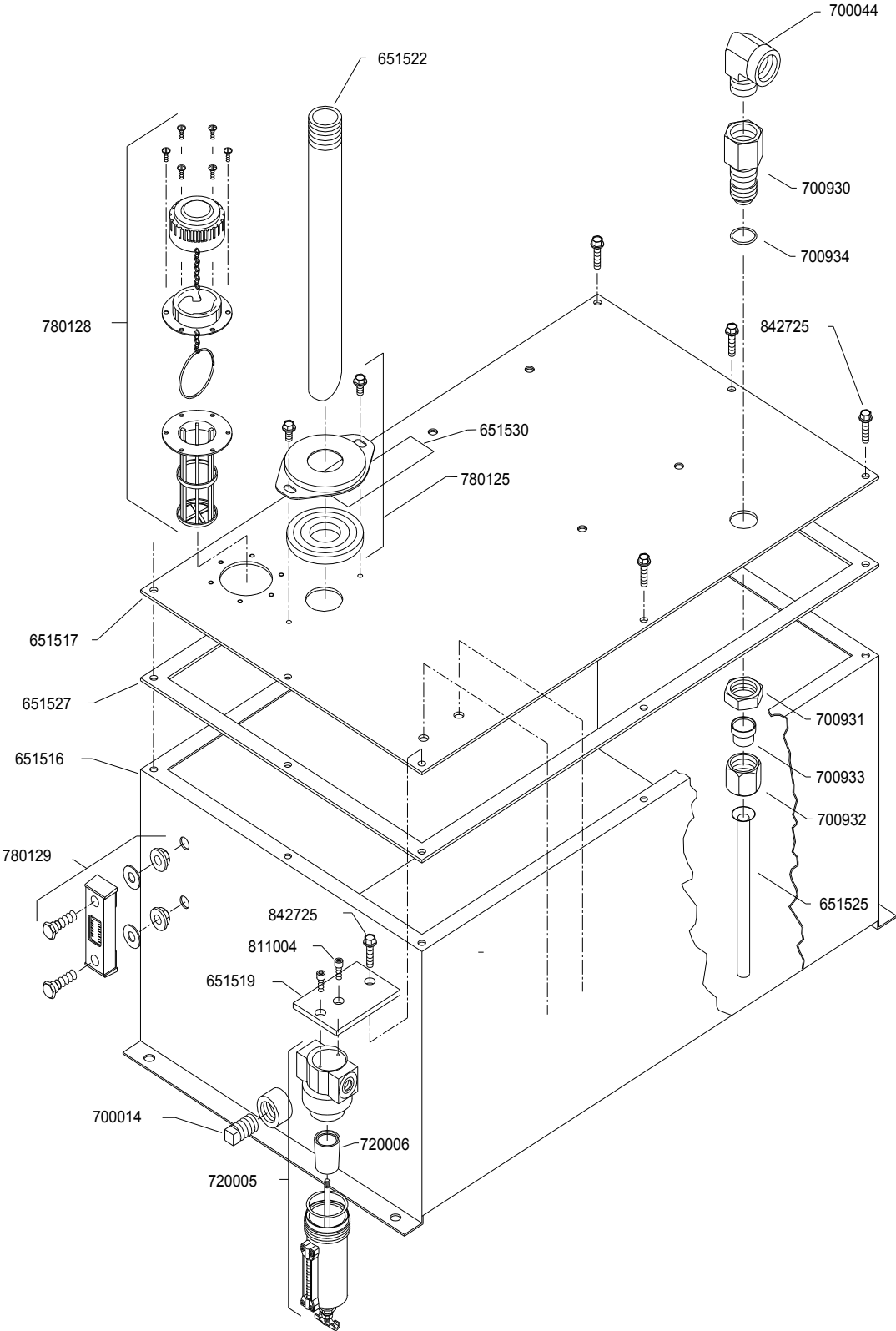


Figure 7 TANK ASSEMBLY

KENTMASTER MODEL HPP-2-A
HYDRO POWER PUMP

Serial No. -A- Date 08-16 651600

PART NO.	DESCRIPTION	QTY	PART NO.	DESCRIPTION	QTY
200121	CONNECTOR, CABLE	1	700931	NUT, BULKHEAD	1
200129	CONNECTOR, CABLE	1	700932	NUT	1
200700	CORD, POWER	1	700933	SLEEVE	1
200812	LOCKNUT	2	700934	O-RING	1
200816	RING, SEAL	2	701079	ELBOW, MALE (RETURN)	1
200905	SWITCH, SUB. PRES/ELECT.	1	701142	CONNECTOR, MALE	1
200906	RELAY, SOCKET	2	701150	CONNECTOR, MALE	2
200907	RELAY	1	701870	FITTING, BULKHEAD	1
200909	DELAY, SOLID STATE TIME	1	701871	CLAMP, PRESS-ON HOSE	2
200910	MOTOR, ELECTRIC (7.5 HP - 60 Hz)	1	701872	ADAPTOR, PIPE TO FEMALE ADAPTOR	1
200911	MOTOR, ELECTRIC (7.5 HP - 50 Hz)	1	701873	FITTING, HOSE	1
651510	BRACKET, MOTOR-PUMP	1	720005	FILTER, AIR	1
651511	BOX, WIRE	1	720006	ELEMENT, AIR FILTER	1
651512	PANEL	1	720020	FILTER, RETURN	1
651514	COUPLING, PUMP SIDE	1	720021	ELEMENT, FILTER	1
651515	INSERT, COUPLING	1	720022	HEAD, FILTER	1
651516	RESERVOIR	1	730001	HOSE	1
651518	BRACKET, CONTROL BOX	1	780125	FLANGE, TANK	1
651519	PLATE, AIR FILTER	1	780128	BREATHER, FILLER	1
651520	BOX ASSEMBLY, CONTROL	1	780129	GAUGE, LIQUID LEVEL	1
651525	TUBING	1	780301	GAUGE, PRESSURE (0-3000)	1
651526	PLUG, MODIFIED	1	780431*	MODULE, AIR LOGIC	1
651527	GASKET	1	780470	PUMP	1
651528	COVER, BRACKET	1	780477	VALVE, COMPLETE DIRECTIONAL	1
651530	PLATE, NAME	1	780478	RELIEF CARTRIDGE	1
651517	COVER, RESERVOIR	1	780490	PLATE, SUB	1
651522	NIPPLE, MODIFIED	1	802305	SCREW, SWITCH	2
651532	COUPLING, MOTOR SIDE	1	802804	SCREW, SOCKET	4
651533	RISER, MOTOR LEFT	1	802816*	SCREW, MODULE	2
651534	RISER, MOTOR RIGHT	1	811004	SCREW, AIR FILTER	2
651544	TUBING, RETURN	1	821114	SCREW, DIRECTIONAL VALVE	4
651611*	BRACKET, MODULE	1	821508	SCREW, RISER	4
700004	PLUG, PIPE	2	831303	SCREW, COUPLING SET	1
700014	PLUG, PIPE	1	831305	SCREW, COUPLING SET	1
700421	ELBOW, 90° STREET	1	841104	SCREW, WIRE BOX AND PUMP BRACKET	4
700043	ELBOW, 90° STREET	1	841508*	SCREW, MOTOR	6
700044	ELBOW, 90° STREET	1	841510	SCREW, PUMP	2
700073	TEE, MALE RUN	1	841812	SCREW, MOTOR BRACKET	4
700111	COUPLING, PIPE	1	842725	SCREW, HEX	8
700175	NIPPLE, HEX LONG	1	842730	SCREW, PANEL	3
700202	NIPPLE, LONG	1	850003	NUT, PANEL HEX	2
700265	NIPPLE, HEX	1	850008*	NUT, MODULE PANEL HEX	6
700267	NIPPLE, HEX	1	850011	NUT, PANEL HEX	2
700314	ELBOW, STREET	1	850015*	NUT, PLATE HEX	2
700320	TEE	1	850516*	WASHER, MOTOR	4
700360	NIPPLE, HEX	1	850616	WASHER, MOTOR PUMP	8
700373	BUSHING	1	850618	WASHER	4
700380	PLUG	1	850708	WASHER, PANEL	4
700930	CONNECTOR, FEMALE BULKHEAD	1	860308	KEY, PUMP	1

*FOR USE WITH ANTI-TIE DOWN

Figure 8 BOM FOR MODEL "HPP-2-A"

HPP-2-A, TECHNICAL SPECIFICATIONS

Electric Motor	5 HP
Hydraulic Pump	7.5 GPM
Tank Capacity	15 Gallons
Max Pressure	2000 PSI

Electrical**Standard Motor options for Kentmaster Power Unit HPP-2-A:**

- 220/380v -3 phase - 50 Hz – 5 HP – 1725RPM
- 208/230/416/460v – 3 phase – 60Hz – 5 HP – 1725RPM

See Wiring Diagrams (Figure 3).

Control Panel:

- 110V/220V – Single Phase

See Wiring Diagrams (Figure 3).

Hydraulic

Hydraulic Tank Capacity: 15 Gallons

Maximum line pressure: 2000 PSI

Kentmaster recommends hydraulic oil Mobile DTE-24

MOBILE DTE-24	
ISO GRADE	32
VISCOSITY, ASTM D 445	
cSt @ 40 C	31.5
cSt @ 100 C	5.29
VISCOSITY INDEX, ASTM D 2270	98
SPECIFIC GRAVITY @ 15.6C / 15.6C, ASTM D1298	0.871
COPPER STRIP CORROSION ASTM D 130, 3 HRS @ 100C	1B
RUST CHARACTERISTICS PROC B, ASTM D 665	PASS
POUR POINT, C, ASTM D 97	-27
FLASH POINT, C, ASTM D 92	220
FZG 4-SQUARE LOAD SUPPORT, DIN 51354, FAIL STAGE	12
FOAM SEQUENCE I, II, III, ASTM D 892, ML	20/0

Air supply

Min air pressure required for ELECTRIC/AIR PRESSURE SWITCH (# 200905) is 67 PSI.

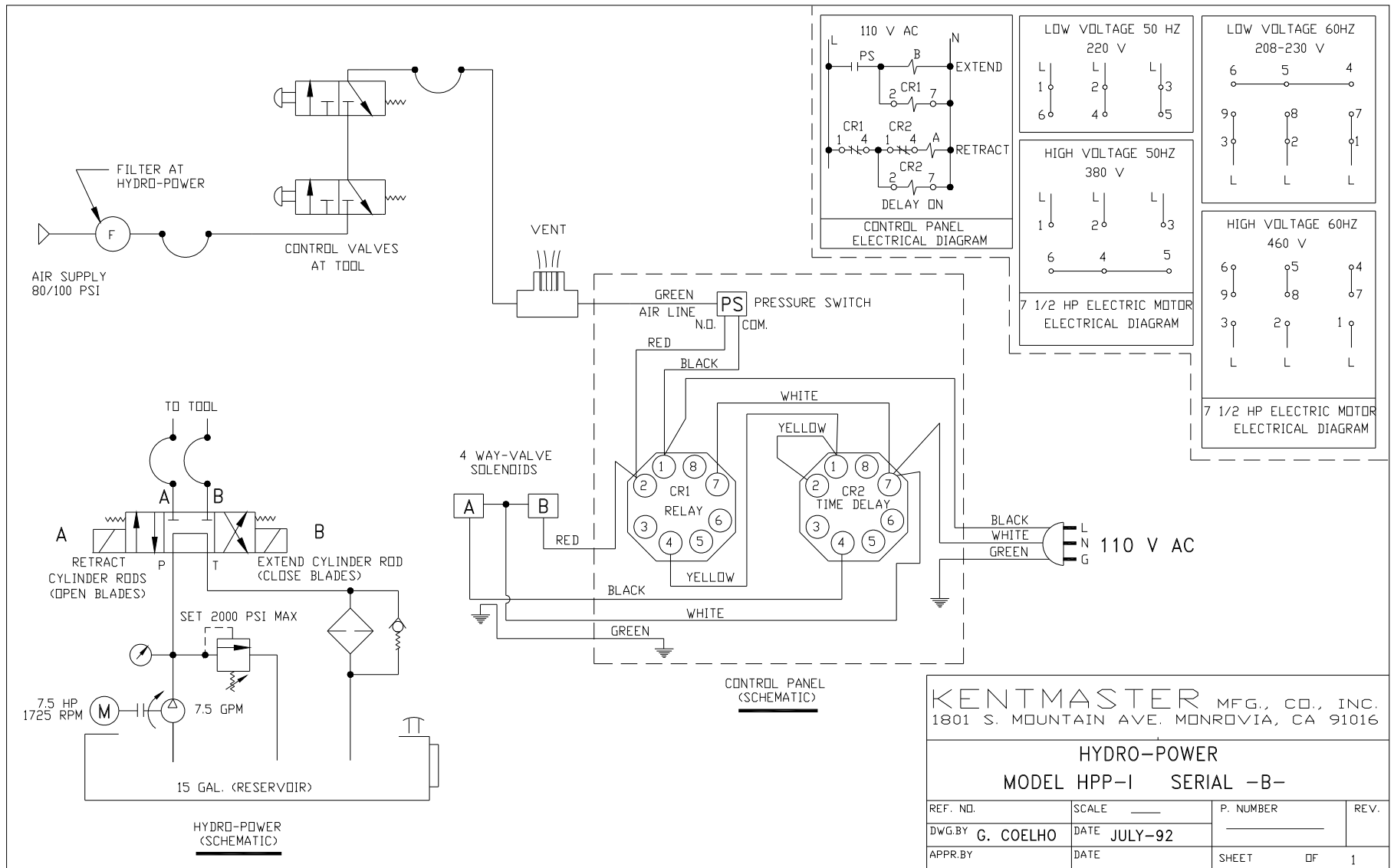


Figure 9 HPP-2-A, WIRING DIAGRAM

HPP-2-A : INSTALLATION, OPERATING AND MAINTENANCE

INSTALLATION AND OPERATING INSTRUCTIONS

1. INSTALL THE PUMP ON EVEN SURFACE.
2. HPP-2-A IS SUPPLIED WITHOUT OIL. ONCE RECEIVED, FILL UP THE TANK WITH MOBIL DTE-24 OIL (15 GALLONS). USE LIQUID GAGE (780129) ON SIDE OF THE TANK TO CHECK OIL LEVEL.
3. BEFORE YOU PLUG IN THE PUMP CONFIRM YOUR CONTROL VOLTAGE (115V OR 220V, SINGLE PHASE) AND 3-PHASE POWER SUPPLY.
4. ATTACH HOSES AND TOOL TO THE PUMP. KENTMASTER RECOMMENDS UP TO 20 FT LONG HOSES BETWEEN TOLL AND PUMP. (CONNECTION DIAGRAM FIGURE 4 AND 5)
5. CHECK IF PUMP IS PROVIDED WITH ANTI-TIE DOWN OR STANDARD CONTROL.
6. CONNECT AIR SUPPLY AND AIR LINES COMING FROM TOOL ACCORDING TO YOUR CONTROL OPTIONS. (CONNECTION DIAGRAM FIGURE 4 AND 5)
7. TURN ON THE MOTOR. CHECK THE FAN ON THE BACK OF THE MOTOR. FAN SHOULD ROTATE CLOCK WISE.
8. ACTIVATE THE TOOL.
9. USE RELIEF CARTRIDGE 780478 ON VALVE SUBPLATE TO ADJUST PRESSURE. STANDARD PRESSURE IS 1500 PSI. USE PRESSURE GAGE 780301 TO READ OPERATING PRESSURE.

MAINTENANCE INSTRUCTIONS

DAILY:

1. KEEP THE PUMP CLEAN ALL THE TIME
2. CHECK THE LINES FOR LEAKAGE
3. CHECK OIL LEVEL IN THE TANK.
4. CHECK OIL FILTER.

REPLACE THE FILTER ACCORDING TO INSTRUCTIONS PROVIDED ON FILTER.
OIL SHOULD BE REPLACED EVERY 4 MONTHS OR SOONER IF LOOKS WATERY.

TROUBLESHOOTING

1. PUMP IS RUNNING HOT

- CHECK OIL LEVEL IN TANK. ADD OIL IF NECESSARY
- CHECK OIL PRESSURE. ADJUST RELIEF CARTRIDGE
- CHECK HYDRAULIC LINES. CLEAN THE LINES
- CHECK RETURN LINES. REPLACE FILTER

2. PUMP IS RUNNING BUT TOOL IS NOT RUNNING

- CHECK LINE CONNECTION BETWEEN TOOL AND PUMP
- MAKE SURE AIR CONTROL LINES ARE CONNECTED ACCORDING TO THE DIAGRAM (FIG. 4 AND 5)
- AIR PRESSURE IS 65 PSI AND LESS. ELECTRIC / AIR PRESSURE SWITCH (200905) IS NOT ACTIVATING. INCREASE AIR LINE PRESSURE TO 67 PSI AND ABOVE.
- CHECK CONTROL VALVE. REPLACE CONTROL VALVE
- MOTOR IS RUNNING CCW. SWITCH WIRES 2 AND 3 IN MOTOR WIRE BOX. MOTOR SHOULD RUN CLOCKWISE.
- CHECK OIL LEVEL IN TANK. ADD OIL IF NECESSARY
- CHECK THE TOOL. PROCEED ACCORDING TO TOOL MANUAL.

3. PUMP IS NOT RUNNING

- CHECK WIRING.
- CHECK POWER SUPPLY VOLTAGE
- CHECK MOTOR. IF BURNED OUT, REPLACE
- CHECK THE PUMP. CLEAN, REPLACE SEAL KIT.
- CHECK COUPLING BETWEEN MOTOR AND PUMP

TOOL CONTROL OPTIONS

HPP-1-A IS SUPPLIED WITH STANDARD (TOOL HANDLES IN SERIES) OR ANTI-TIE DOWN CONTROL OPTION. ANTI-TIE DOWN IS OPTIONAL. PLEASE SPECIFY THIS OPTION WHEN ORDERING HPP-2-A.

WIRING AND CONNECTION FOR STANDARD AND ANTI-TIE DOWN OPTION ARE SHOWN IN FIGURES 4 AND 5.

HPP-1-A or HPP-2-A TUBING DIAGRAM WITHOUT ANTI-TIE DOWN OPTION

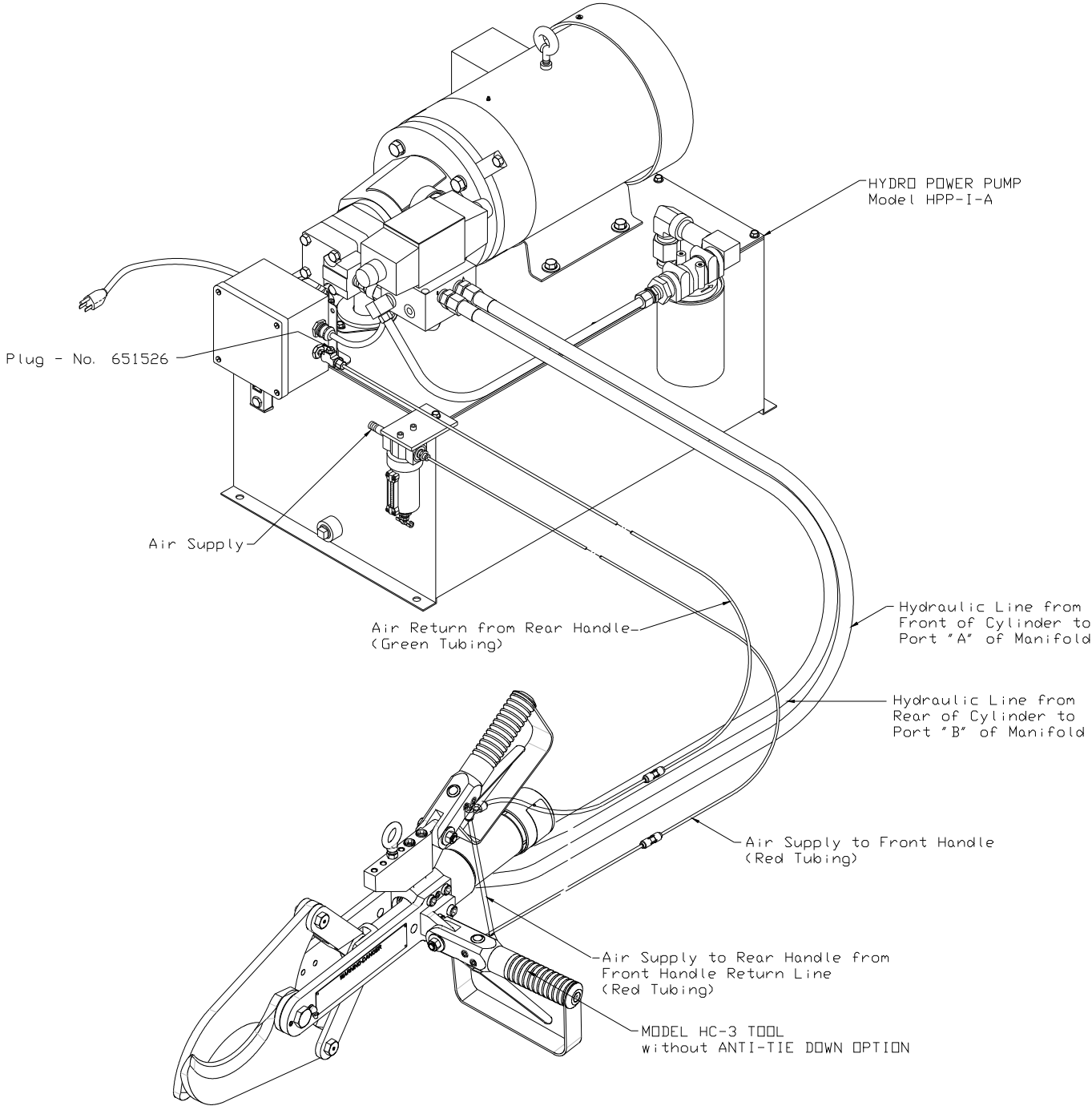


Figure 10 HPP-2-A TUBING DIAGRAM WITHOUT ANTI-TIE DOWN

HPP-1-A or HPP-2-A TUBING DIAGRAM WITH ANTI-TIE DOWN OPTION

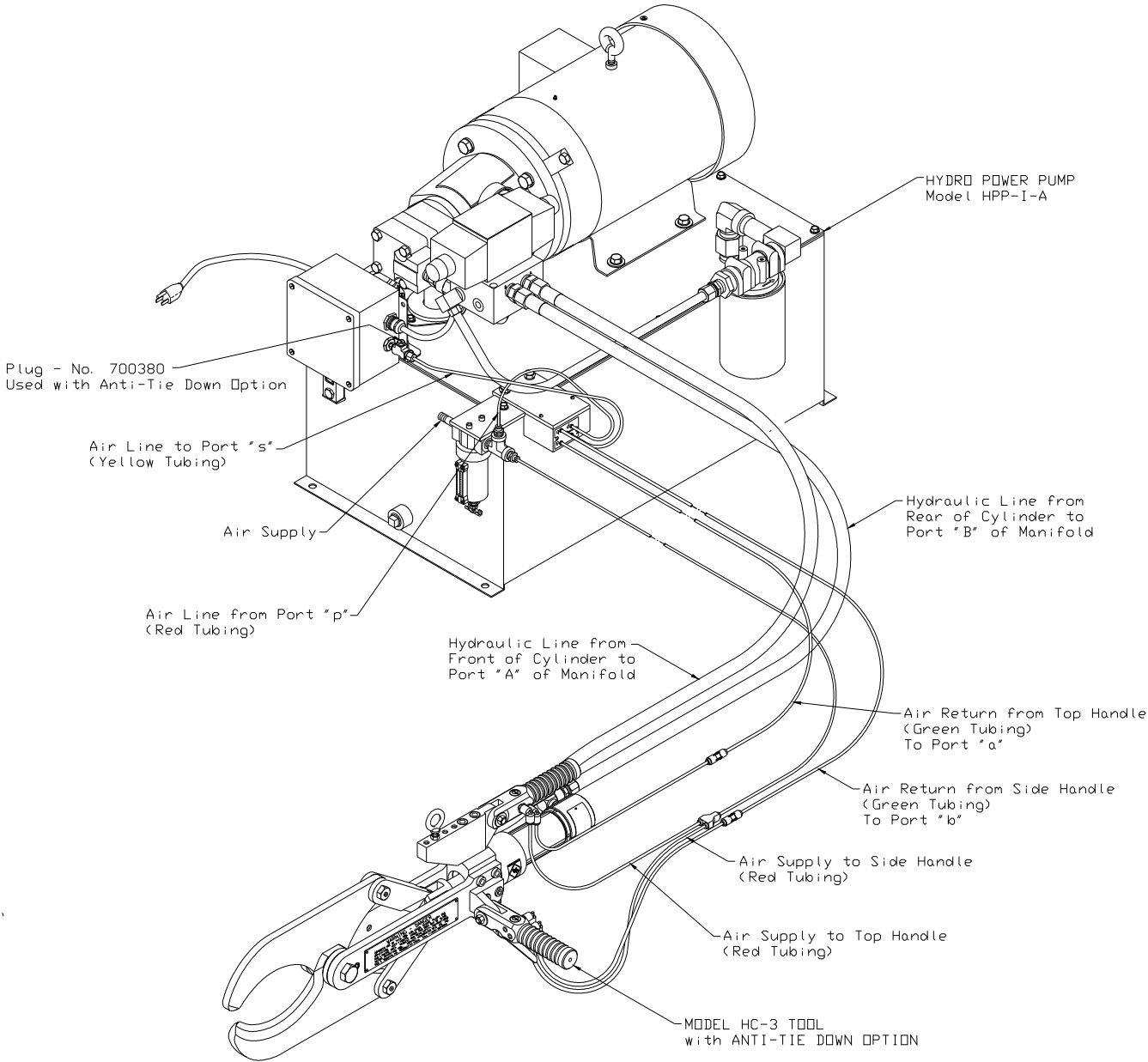
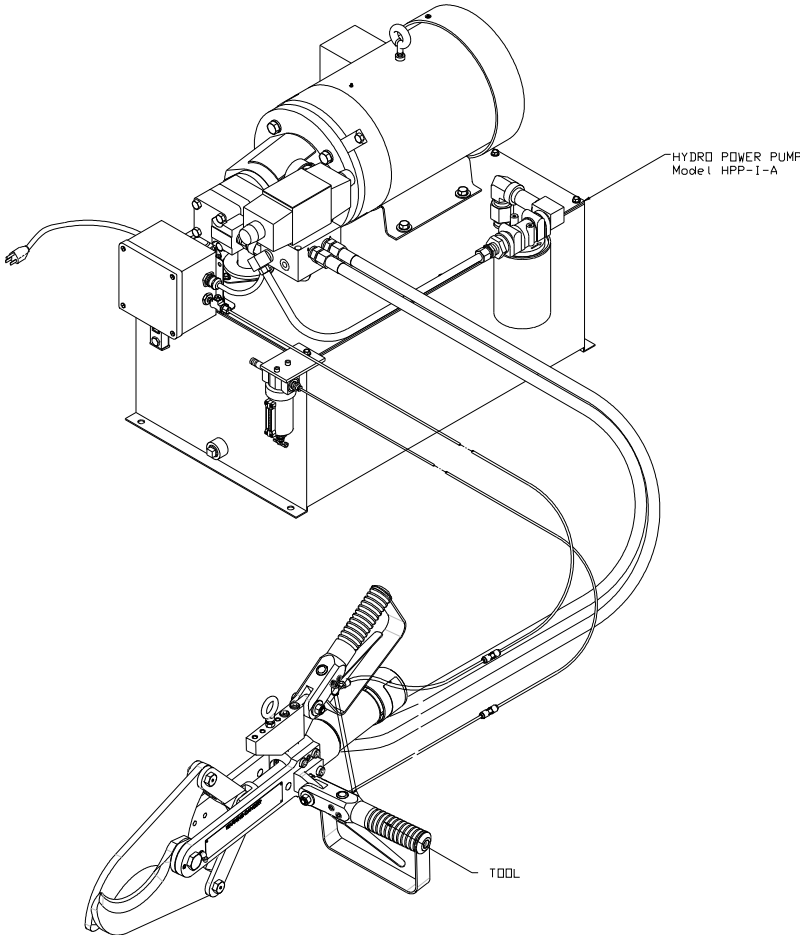


Figure 11 HPP-2-A TUBING DIAGRAM WITH ANTI-TIE DOWN

[ENGLISH]

GENERAL INFORMATION

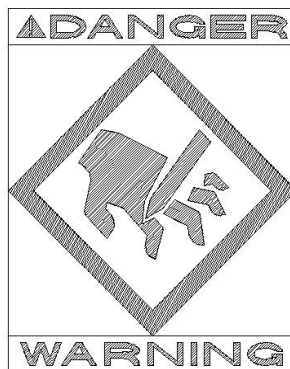


MODEL
“HPP-2-A” HYDRO POWER UNIT

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NOTICE TO EMPLOYER AND PURCHASER OF TOOL
NOTICE TO SAFETY DIRECTOR

You have purchased a powerful tool that, if misused, can cause severe injury and harm to your employees. You must instruct your employees in the safe and proper use of this tool and to follow the safety procedures and instructions that have been supplied by the manufacturer of this tool. Please follow the following instructions.



1. Instruct tool operators to test the tool each day before using it to be sure it does not malfunction. Remove and repair any tool that malfunctions.
2. Instruct tool operators to immediately stop using a tool that malfunctions or is defective.
3. Instruct personnel to immediately remove all tools that malfunction. Be sure to disconnect tool from power supply.
4. Instruct all personnel to stay clear of tool, and not to stand or walk in front of, or next to tool when in use.
5. Point out to all personnel the dangers related to the misuse of tool and the importance of following safety procedures and instructions.
6. Do not make, or allow others to make, alterations or modifications to this tool. Replace all lost or illegible labels.
7. Follow all safety, installation and maintenance instructions provided with this tool. Establish proper safety procedures in accordance with local and national requirements to prevent accidental energizing of tool that can cause injuries.
8. If this tool is sold or change in ownership takes place, you must provide the new owner all safety instructions, notices and maintenance instructions you were originally provided. You can obtain additional copies of the instructions from Kentmaster, free of charge upon request.
9. Give copies of instructions to:
(A) Tool Operators
(B) Maintenance Supervisor
(C) Clean-up Supervisor


GENERAL INFORMATION


COVERING: SAFETY PRECAUTIONS AND PLACING INTO SERVICE
HYDRO POWER UNIT

READ THIS MANUAL CAREFULLY BEFORE INSTALLING, OPERATING OR SERVICING THIS TOOL


IT IS THE RESPONSIBILITY OF THE EMPLOYER TO PLACE THIS INFORMATION INTO THE HANDS OF THE OPERATOR.


PLACING INTO SERVICE

 **WARNING** = Hazards or unsafe practices which could result in severe personal injury, death or substantial property damage.

 **CAUTION** = Hazards or unsafe practices which could result in minor personal injury, product or property damage.

 **NOTICE** = Important installation, operation or maintenance information.

 **WARNING** Installation, adjustment repair and maintenance of this tool must be made by trained and qualified personnel.

 **WARNING** Always disconnect power supply from tool before:
(A) Installing or removing blade from tool.
(B) Making repairs or adjustments to the tool.
(C) performing maintenance or cleanup work.

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