



PARTS LIST FOR  
AIR COMPRESSOR

***AAS-23105-80H, AAS-23105-80V***  
***AAS-20305-80H, AAS-20305-80V***  
***AAS-23305-80H, AAS-23305-80V***  
***AAS-46305-80H, AAS-46305-80V***  
 (AFTER SERIAL #20107354)

PHASE:	AAS-23105-80H, AAS-23105-80V AAS-20305-80H, AAS-20305-80V, AAS-23305-80H, AAS-23305-80V AAS-46305-80H, AAS-46305-80V	SINGLE THREE THREE THREE	MAXIMUM PRESSURE:	175 PSI
			COMPRESSOR OIL GRADE:	SAE30W NON-DETERGENT
			COMPRESSOR OIL CAPACITY:	48 oz.
VOLTS:	AAS-23105-80H, AAS-23105-80V AAS-20305-80H, AAS-20305-80V, AAS-23305-80H, AAS-23305-80V AAS-46305-80H, AAS-46305-80V	230V 200V 230V 460V		
MAXIMUM AMPS:	AAS-23105-80H, AAS-23105-80V AAS-20305-80H, AAS-20305-80V, AAS-23305-80H, AAS-23305-80V AAS-46305-80H, AAS-46305-80V	23A 16.1A 13.8A 6.9A		

This Parts Listing has been compiled for your benefit. You can be assured your Mi-T-M Electric Air Compressor was constructed and designed with quality and performance in mind. Each component has been rigorously tested to insure the highest level of acceptance. The contents of this Parts Listing are based on the latest product information available at the time of publication. Mi-T-M reserves the right to make changes in price, color, materials, equipment, specifications or models at any time without notice.

#### **WARNING**

**THIS IS A PROFESSIONAL ELECTRIC AIR COMPRESSOR. CAUTION SHOULD BE OBSERVED WHEN USING OR REPAIRING THIS UNIT! READ AND FOLLOW THE SAFETY WARNINGS LISTED BELOW BEFORE ATTEMPTING ANY REPAIRS ON THIS ELECTRIC AIR COMPRESSOR!**

#### **SAFETY WARNINGS**

1. NEVER alter or modify the equipment. Be sure any accessory items and system components being used will withstand the pressure developed. Use only genuine Mi-T-M parts for repair of your air compressor. Failure to do so can cause hazardous operating conditions and will VOID warranty.
2. Know how to stop and bleed pressures quickly. Be thoroughly familiar with controls.
3. Before servicing the unit, turn unit off, relieve the pressure and allow the unit to cool down. Do not make repairs while the unit is running. Service in a clean, dry, flat area. Block the wheels to prevent the unit from moving. Be especially careful to properly dispose of any flammable materials.
4. After testing the machine, DO NOT leave the pressurized unit unattended. Shut off the unit and release trapped pressure before leaving.

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**NOTES**

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SERIAL NUMBER BREAK

DATE

REASON

#20107354

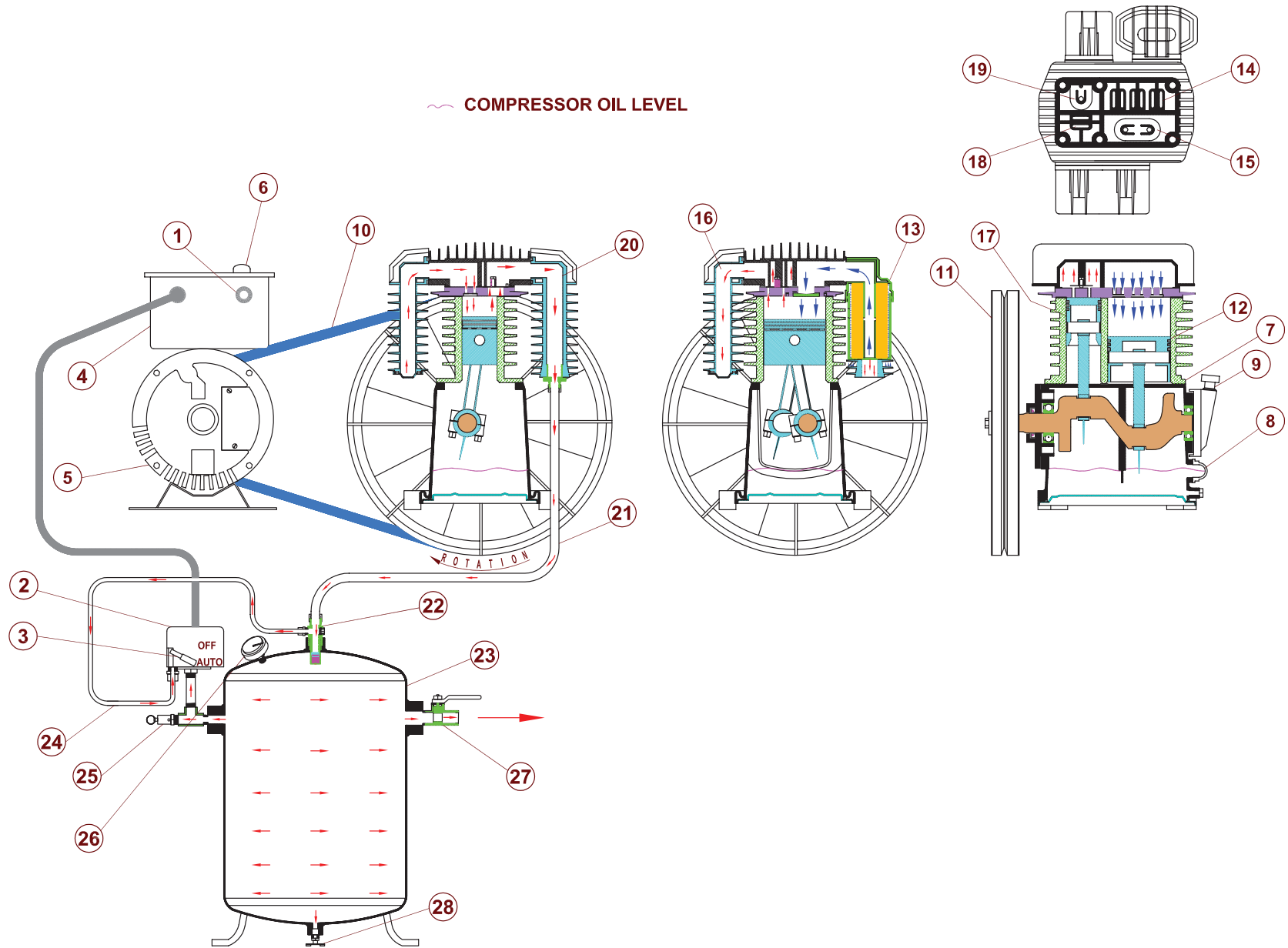
10/05/2009

WIRING CHANGE DUE TO SWITCH

## SPECIFICATIONS

MODEL NUMBER	AAS-23105-80H/80V	AAS-20305-80H/80V	AAS-23305-80H/80V	AAS-46305-80H/80V
<b>MOTOR:</b>				
Horsepower	5HP	5HP	5HP	5HP
Voltage	230V	200V	230V	460V
Amperage	23A	16.1A	13.8A	6.9A
HZ	60	60	60	60
Phase	1	3	3	3
RPM	1750	1750	1750	1750
<b>Compressor Pump:</b>				
Number of Cylinders	2			
Compression Stages	2			
First Stage Bore	2.17			
Second Stage Bore	3.94			
Stroke	3.36			
RPM	820			
Flywheel	16.5"			
Lubrication	Splash			
Oil Capacity	24.7 oz.			
Oil Type	30 W Non Detergent			
Crankcase	Cast Iron			
Bearings	Ball			
Cylinder	Cast Iron			
Valves	Reed			
Head	Cast Iron			
Filter	Canister			
<b>AIR TANK:</b>				
Capacity	80 gallons			
<b>PERFORMANCE:</b>				
CFM Air Displacement	40.97			
CFM @ 40 PSI	20.7			
CFM @ 100 PSI	19.3			
CFM @ 175 PSI	17.8			
Maximum Pressure	175 PSI			
Pump-up Time: 0-175 PSI	8 minutes and 10 seconds			
Recovery Time: 145-175 PSI	1 minute and 19 seconds			
<b>WEIGHT:</b>				
Net	510 lbs			
Shipping	570 lbs			
<b>DIMENSIONS:</b>				
Basic L x W x H	H-52" x 26.5" x 53"		V-33" x 25" x 73"	
Shipping L x W x H	H-57.25" x 35.5" x 53"		V-46" x 45" x 73"	

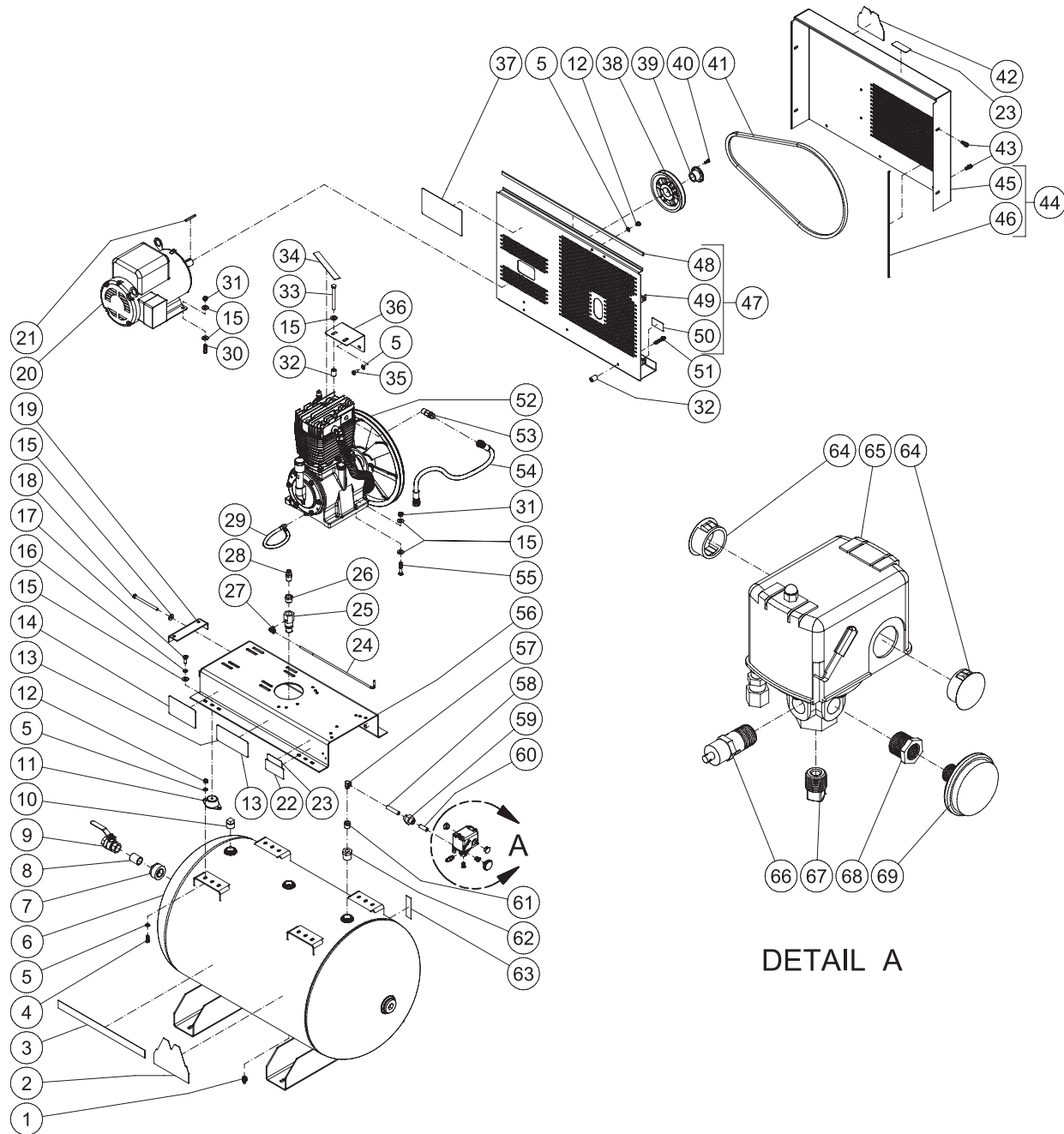
# FLOW CHART



## GENERAL THEORY OF OPERATION

1. The POWER SUPPLY (1) sends the electrical supply to the PRESSURE SWITCH (2). When the PRESSURE SWITCH LEVER (3) is in the "AUTO" position, power is supplied to the CONTACTOR (4) which starts the ELECTRIC MOTOR (5) which is protected from electrical overloads by the MANUAL RESET BUTTON (6).
2. The COMPRESSOR PUMP (7) is lubricated by oil. The oil level should be checked before each use by viewing the COMPRESSOR PUMP OIL SIGHTGLASS (8). If the oil level is low, add SAE-30W non-detergent oil to the COMPRESSOR PUMP OIL FILL PORT (9).
3. When the unit is operating, the V-BELT (10) turns the COMPRESSOR PUMP FLYWHEEL (11) which rotates the crankshaft and moves the pistons.
4. As the FIRST STAGE PISTON (12) moves down, air is drawn in through the INLET AIR FILTER (13). Then through the FIRST STAGE INLET REED VALVE (14) and into the first stage piston chamber. At the same time, the FIRST STAGE OUTLET REED VALVE (15) is closed. This allows air to fill the first stage piston chamber.
5. As the FIRST STAGE PISTON (12) moves upward, the FIRST STAGE INLET REED VALVE (14) closes. The FIRST STAGE OUTLET REED VALVE (15) opens allowing the compressed air to flow into the INTERCOOLER (16) and into the second stage.
6. As the SECOND STAGE PISTON (17) moves down, the first stage compressed air is drawn in through the SECOND STAGE INLET REED VALVES (18) and into the second stage piston chamber. At the same time, the SECOND STAGE OUTLET REED VALVES (19) is closed.
7. As the SECOND STAGE PISTON (17) moves upward, the SECOND STAGE INLET REED VALVES (18) closes. The SECOND STAGE OUTLET REED VALVES (19) opens allowing the compressed air to flow into the AFTERCOOLER (20) and DISCHARGE LINE (21).
8. STANDARD START/STOP FEATURE:
  1. The compressed air opens the CHECK VALVE (22) and moves into the AIR TANK (23). When the pressure in the AIR TANK (23) reaches the maximum pressure setting of the PRESSURE SWITCH (2), the ELECTRIC MOTOR (5) stops and the CHECK VALVE (22) will close.
  2. The pressurized air remaining in the PUMP DISCHARGE LINE (21) exits through the PRESSURE SWITCH BLEND-OFF LINE (24) so the ELECTRIC MOTOR (5) can restart under a no-load condition.
9. The SAFETY RELIEF VALVE (25) protects the system from any overpressure conditions.
10. The TANK PRESSURE GAUGE (26) indicates tank pressure. The air exits through the OUTLET FITTING (27).
11. The PRESSURE SWITCH LEVER (3) stops the ELECTRIC MOTOR (5) when moved to the "OFF" position.
12. When the PRESSURE SWITCH LEVER (3) is in the "OFF" position, compressed air should be released from the AIR TANK (23) by opening the attached air tool or by pulling on the SAFETY RELIEF VALVE (25). When the TANK PRESSURE GAUGE (26) registers less than 10 PSI, drain the condensation from the AIR TANK (23) by opening the TANK DRAIN (28).

# ASSEMBLY FOR AAS 80 GAL HORIZONTAL

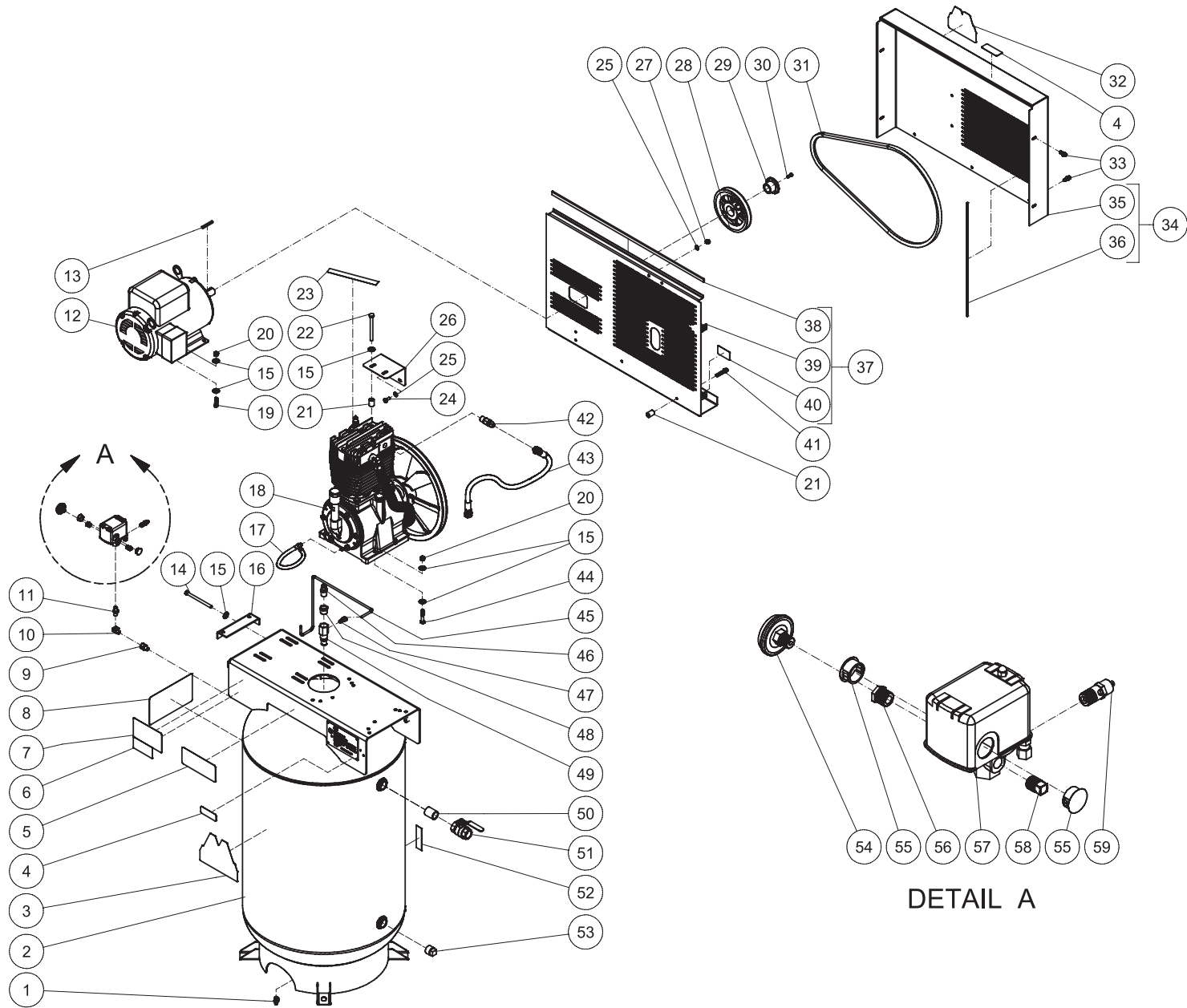


AAS 80 GAL HORIZONTAL 042912KMD

FRAME ASSEMBLY							
ITEM	DESCRIPTION	Mi-T-M #	QTY	ITEM	DESCRIPTION	Mi-T-M #	QTY
1	PETCOCK	23-0312	1	35	BOLT	27-0066	2
2	DECAL - Mi-T-M	34-2170	1	36	BELTGUARD STABILIZER	13-0196A01	1
3	DECAL - Mi-T-M STRIPE	34-2189	1	37	DECAL - CAUTION/WARNING/DANGER (SEE 71-0083)	N/A	1
4	BOLT	27-0067	2	38	SHEAVE	10-0148	1
5	WASHER	28-0003	8	39	BUSHING	9-0010	1
6	TANK ASSEMBLY	12-0208A01	1	40	BOLT	27-0015	2
7	REDUCER	24-0233	1	41	BELT	11-0081	1
8	NIPPLE	24-0200	1	42	DECAL - Mi-T-M	34-2169	1
9	BALL VALVE	22-0344	1	43	BOLT	27-9524	7
10	PLUG	24-0219	1	44	BELTGUARD FRONT ASSEMBLY (INC. 45, 46)	854-0107	1
11	ISOLATOR	14-0109	4	45	BELTGUARD FRONT PANEL (SEE 854-0097)	6-0130A01	1
12	LOCKNUT	30-0157	4	46	EDGING *(TWO FEET REQUIRED)	33-0423	2
13	DECAL - OPERATING INSTRUCTIONS (SEE 71-0083)	N/A	1	47	BELTGUARD BACK ASSEMBLY (INC. 48-50)	854-0106	1
14	DECAL - MAINTENANCE INSTRUCTIONS (SEE 71-0083)	N/A	1	48	EDGING *(THREE FEET REQUIRED)	33-0020	1
15	WASHER	28-0023	24	49	BELTGUARD BACK (SEE 854-0106)	6-0129A01	1
16	LOCKWASHER	29-0008	4	50	DECAL - BELTGUARD IN PLACE (SEE 71-0083)	N/A	1
17	BOLT	27-0117	4	51	BOLT	27-9529	3
18	BOLT	27-0133	2	52	PUMP	3-0298	1
19	BELT TENSIONER PLATE	20-1036A01	1	53	ELBOW	24-0074	1
20	MOTOR (AAS-23105-80H)	2-0173	1	54	HOSE	15-0243	1
-	MOTOR (AAS-20305-80H)	2-0177	1	55	BOLT	27-0121	4
-	MOTOR (AAS-23305-80H, (AAS-46305-80H))	2-0175	1	56	BASEPLATE	5-0281A01	1
21	KEY	43-0078	1	57	ELBOW	23-0014	1
22	DECAL- SILVER STICKER	N/A	1	58	NIPPLE	24-0314	1
23	DECAL - RISK OF BURNS (SEE 71-0083)	N/A	2	59	UNION	24-0317	1
24	COPPER TUBE *(TWO FEET REQUIRED)	54-0034	1	60	NIPPLE	24-0313	1
25	CHECK VALVE	22-0447	1	61	REDUCER	23-0056	1
26	REDUCER	23-0023	1	62	REDUCER	23-0226	1
27	ELBOW	23-0316	1	63	DECAL - TANK DRAIN (SEE 71-0083)	N/A	2
28	ADAPTOR	23-0331	1	64	PLUG	39-0014	2
29	OIL DRAIN HOSE	70-0520	1	65	PRESSURE SWITCH	22-0416	1
30	BOLT	27-0118	4	66	PRESSURE RELIEF VALVE	22-0267	1
31	LOCKNUT	30-0159	8	67	PLUG	24-0009	1
32	SPACER	33-0425	5	68	REDUCER	23-0111	1
33	BOLT	27-8071	2	69	PRESSURE GAUGE	22-0271	1
34	DECAL - CHECK OIL (SEE 71-0083)	N/A	1	-	DECAL SET	71-0083	1

\*MUST ORDER IN ONE FOOT LENGTHS

# ASSEMBLY FOR AAS 80 GAL VERTICAL



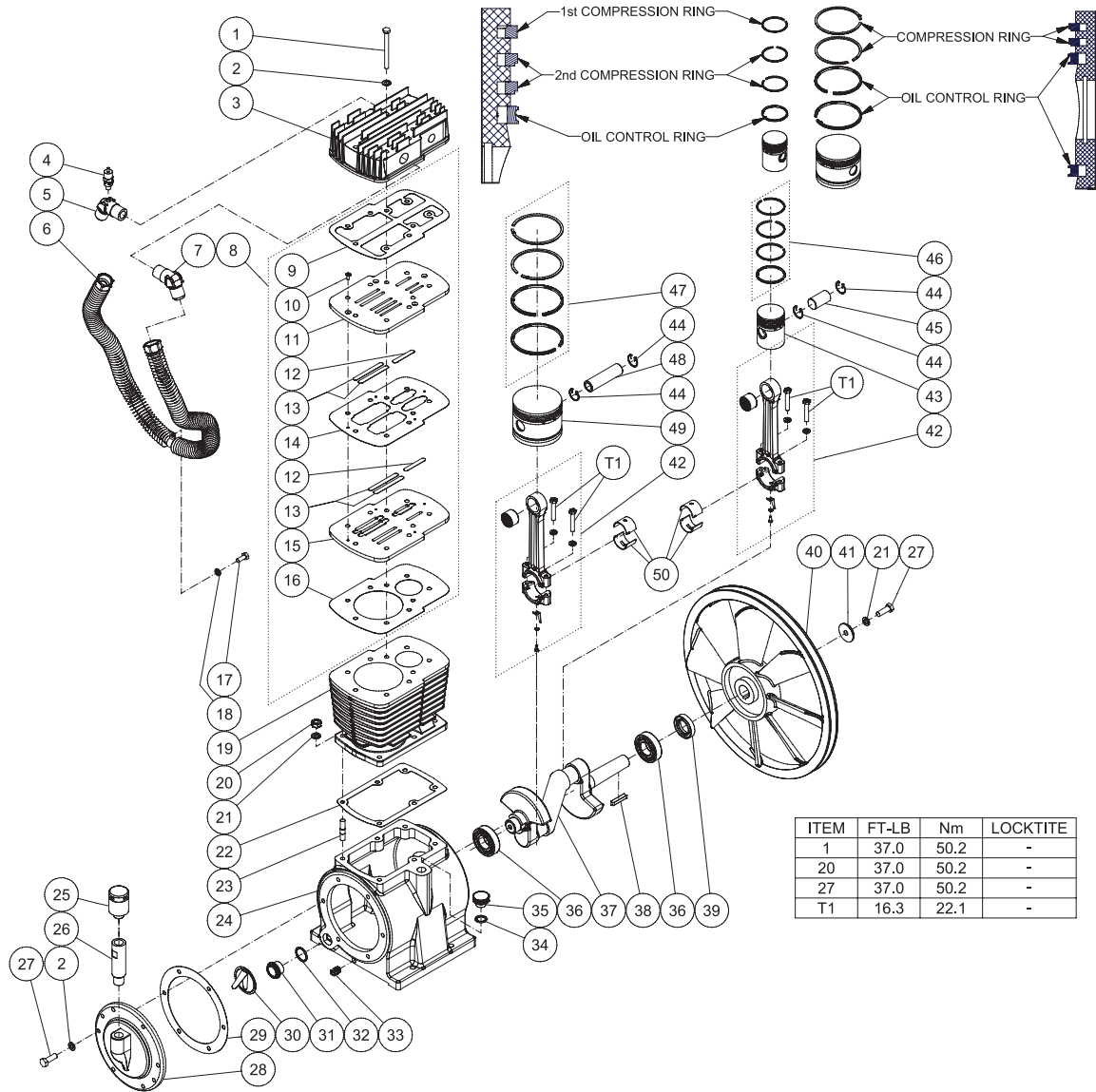
AAS 80 GALLON VERTICAL 041912-KMD

## FRAME ASSEMBLY

ITEM	DESCRIPTION	PART #	QTY	ITEM	DESCRIPTION	PART #	QTY
1	PETCOCK	23-0312	1	30	BOLT	27-0015	2
2	TANK ASSEMBLY	12-0203A01	1	31	BELT	11-0081	1
3	DECAL - Mi-T-M	34-2170	1	32	DECAL - Mi-T-M	34-2169	1
4	DECAL - RISK OF BURNS (SEE 71-0083)	N/A	2	33	BOLT	27-9524	7
5	DECAL - OPERATING INSTRUCTIONS (SEE 71-0083)	N/A	1	34	BELTGUARD FRONT ASSEMBLY (INC. 35, 36)	854-0107	1
6	DECAL- SILVER STICKER	N/A	1	35	BELTGUARD FRONT PANEL (SEE 854-0097)	6-0130A01	1
7	DECAL - MAINTENANCE INSTRUCTIONS (SEE 71-0083)	N/A	1	36	EDGING *(TWO FEET REQUIRED)	33-0423	2
8	DECAL - CAUTION/WARNING/DANGER (SEE 71-0083)	N/A	1	37	BELTGUARD BACK ASSEMBLY (INC. 38-40)	854-0106	1
9	ADAPTER	23-0126	1	38	EDGING *(THREE FEET REQUIRED)	33-0020	1
10	ELBOW	23-0014	1	39	BELTGUARD BACK (SEE 854-0106)	6-0129A01	1
11	NIPPLE	24-0145	1	40	DECAL - BELTGUARD IN PLACE (SEE 71-0083)	N/A	1
12	MOTOR (AAS-23105-80V)	2-0173	1	41	BOLT	27-9529	3
-	MOTOR (AAS-20305-80V)	2-0177		42	ELBOW	24-0074	1
-	MOTOR (AAS-23305-80V, AAS-46305-80V)	2-0175		43	HOSE	15-0243	1
13	KEY	43-0078	1	44	BOLT	27-0121	4
14	BOLT	27-0133	2	45	COPPER TUBING *(THREE FEET REQUIRED)	54-0034	1
15	WASHER	28-0023	20	46	ADAPTOR	23-0331	1
16	BELT TENSIONER PLATE	20-1036A01	1	47	ADAPTER	23-0328	1
17	OIL DRAIN HOSE	70-0520	1	48	REDUCER	23-0023	1
18	PUMP	3-0298	1	49	CHECK VALVE	22-0435	1
19	BOLT	27-0118	4	50	NIPPLE	24-0200	1
20	LOCKNUT	30-0159	8	51	BALL VALVE	22-0344	1
21	SPACER	33-0425	5	52	DECAL - TANK DRAIN (SEE 71-0083)	N/A	1
22	BOLT	27-8071	2	53	PLUG	24-0219	1
23	DECAL - CHECK OIL (SEE 71-0083)	N/A	1	54	PRESSURE GAUGE	22-0271	1
24	BOLT	27-0066	2	55	PLUG	39-0014	2
25	WASHER	28-0003	4	56	REDUCER	23-0111	1
26	BELTGUARD STABILIZER	13-0196A01	1	57	PRESSURE SWITCH	22-0416	1
27	LOCKNUT	30-0157	2	58	PLUG	24-0009	1
28	SHEAVE	10-0148	1	59	PRESSURE RELIEF VALVE	22-0267	1
29	BUSHING	9-0010	1	-	DECAL SET	71-0083	1

\*MUST ORDER IN ONE FOOT LENGTHS

# COMPRESSOR PUMP (3-0298)



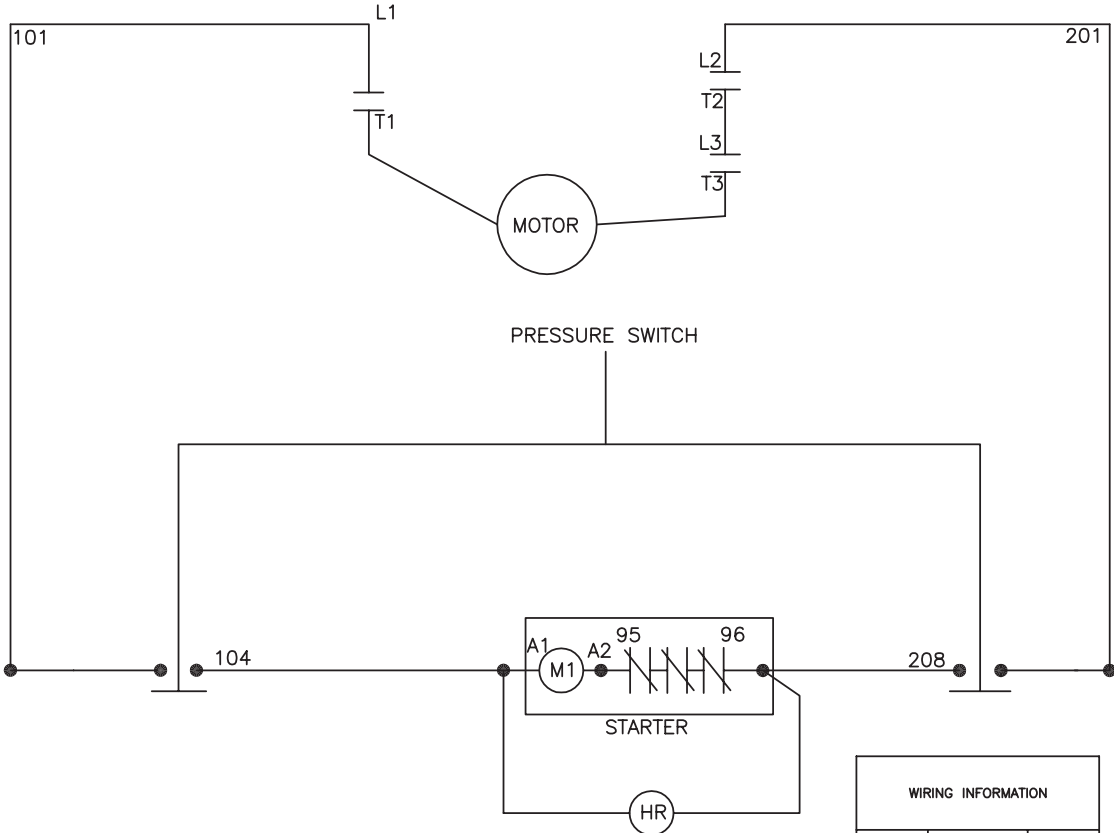
ITEM	FT-LB	Nm	LOCKTITE
1	37.0	50.2	-
20	37.0	50.2	-
27	37.0	50.2	-
T1	16.3	22.1	-

3-0298 102616 JJR

## PUMP ASSEMBLY

ITEM	DESCRIPTION	PART #	QTY	ITEM	DESCRIPTION	PART #	QTY
1	BOLT	27-8043	9	27	BOLT	27-8061	7
2	COPPER WASHER	28-1059	15	28	REAR CRANKCASE COVER	46-1278	1
3	CYLINDER HEAD	46-1272	1	29	GASKET - REAR CRANKCASE COVER	N/A	1
4	LP SAFETY VALVE	22-0362	1	30	OBSTRUCT OIL NET	46-1279	1
5	65° OUTLET ELBOW W/PORT	24-0304	1	31	OIL LEVEL SIGHT GLASS	46-1280	1
6	INTERCOOLER TUBE	46-1273	1	32	O-RING	25-0150	1
7	65° OUTLET ELBOW	24-0305	1	33	PLUG	24-0009	1
8	KIT - VALVE PLATE ASSY - (INC. 9-16)	70-0473	1	34	O-RING	25-0160	1
9	GASKET - VALVE PLATE (UPPER)	N/A	1	35	OIL FILL CAP	46-1281	1
10	SCREW	N/A	4	36	BALL BEARING	48-0024	2
11	UPPER VALVE SEAT	N/A	1	37	PUMP CRANKSHAFT	46-1282	1
12	HP VALVE REED	N/A	2	38	KEY	43-0125	1
13	LP VALVE REED	N/A	4	39	OIL SEAL	26-0302	1
14	GASKET - VALVE PLATE (MIDDLE)	N/A	1	40	FLYWHEEL	10-0139	1
15	LOWER VALVE SEAT	N/A	1	41	WASHER	N/A	1
16	GASKET - VALVE PLATE (LOWER)	N/A	1	42	KIT - HP CONNECTING ROD ASSEMBLY (INC. 49)	70-0468	2
17	BOLT	27-8032	1	43	PISTON	46-1283	1
18	LOCKWASHER	29-0054	1	44	PISTON SNAP RING	46-1284	4
19	CYLINDER	46-1274	1	45	PISTON PIN	46-1285	1
20	NUT	30-7203	6	46	KIT - HP PISTON RING	70-0469	1
21	LOCKWASHER	29-0055	7	47	KIT - LP PISTON RING	70-0470	1
22	GASKET - CYLINDER	N/A	1	48	PISTON PIN	46-1286	1
23	STUD	27-8991	6	49	PISTON	46-1287	1
24	PUMP CRANKCASE	46-1275	1	50	CONNECTING ROD BUSHING	46-1288	4
25	BREATHER ASSY	46-1276	1	-	KIT - PUMP GASKET - (INC. 9, 14, 16, 22, 29)	70-0472	1
26	BREATHER PIPE	46-1277	1				

# WIRING SCHEMATIC STARTER (230V SINGLE PHASE)

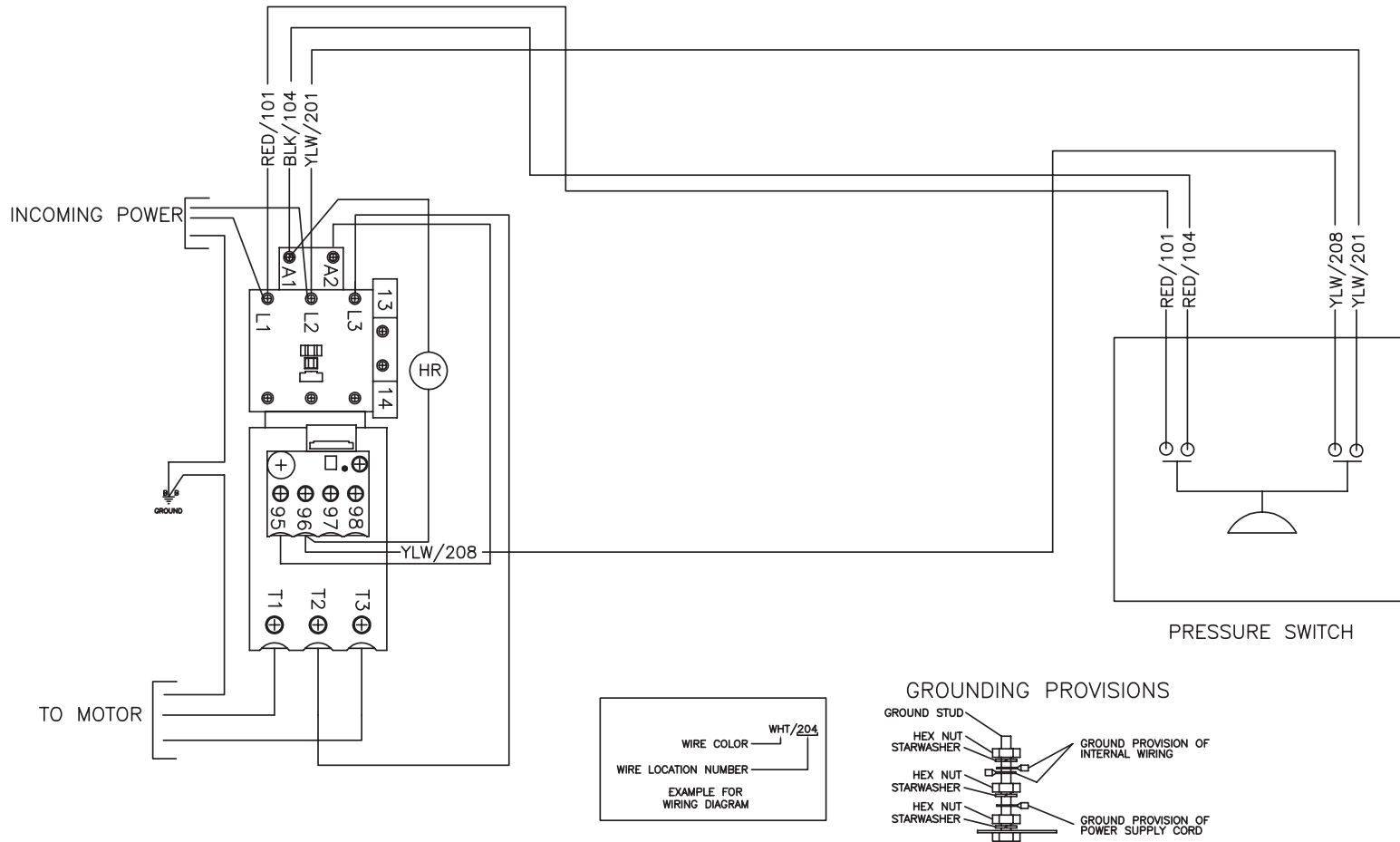


NOTES:  
 1) ALL WIRES ARE 16GA UNLESS OTHERWISE SPECIFIED

WIRING INFORMATION		
HP	VOLTAGE	WIRE SIZE
5	230	10
7.5	230	8

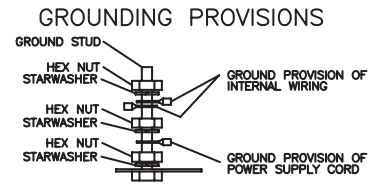
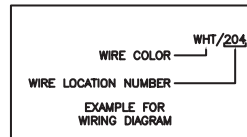
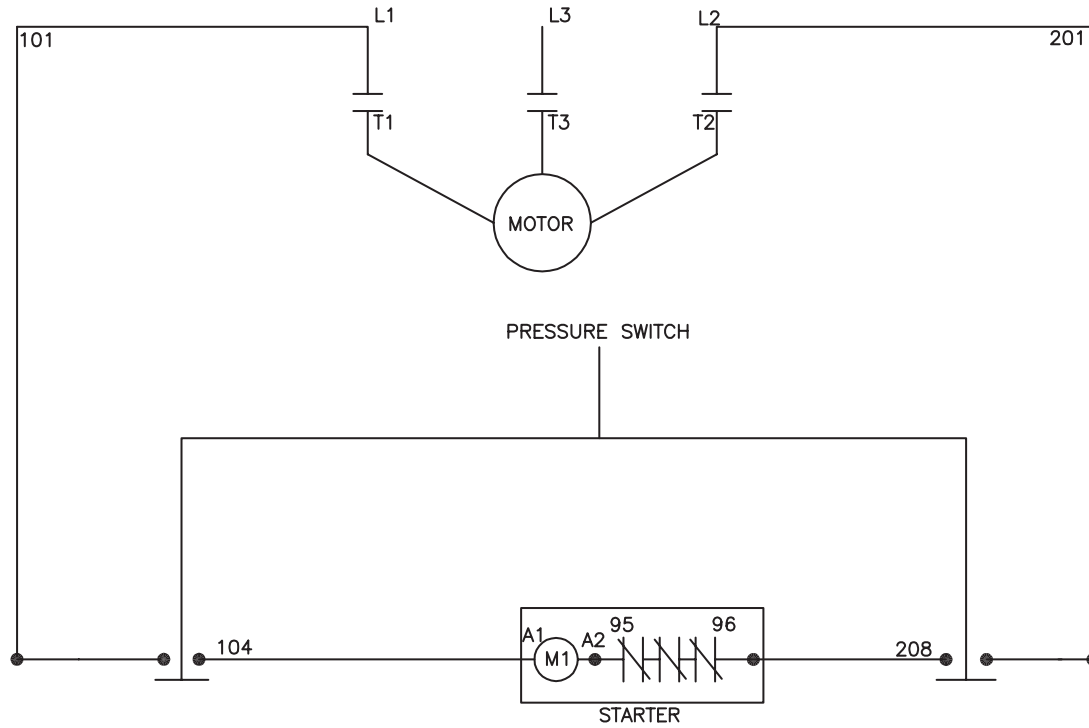
WIRING SCHEMATIC STARTER 230V SINGLE PHASE 050411

# WIRING DIAGRAM STARTER (230V SINGLE PHASE)



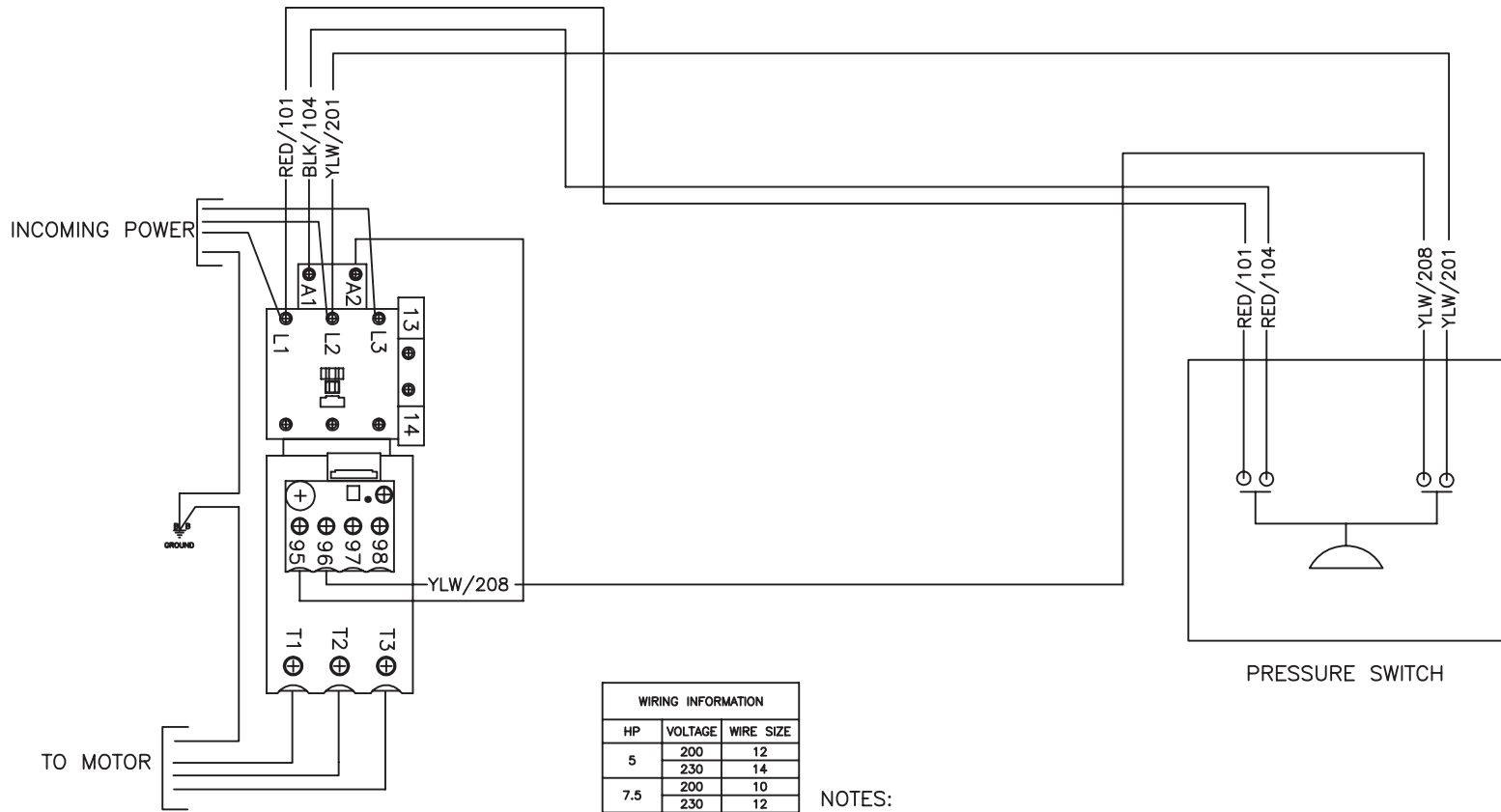
WIRING DIAGRAM STARTER 230V SINGLE PHASE 050411

# WIRING SCHEMATIC STARTER (200-230V THREE PHASE)



WIRING SCHEMATIC STARTER 200-230V THREE PHASE 050411

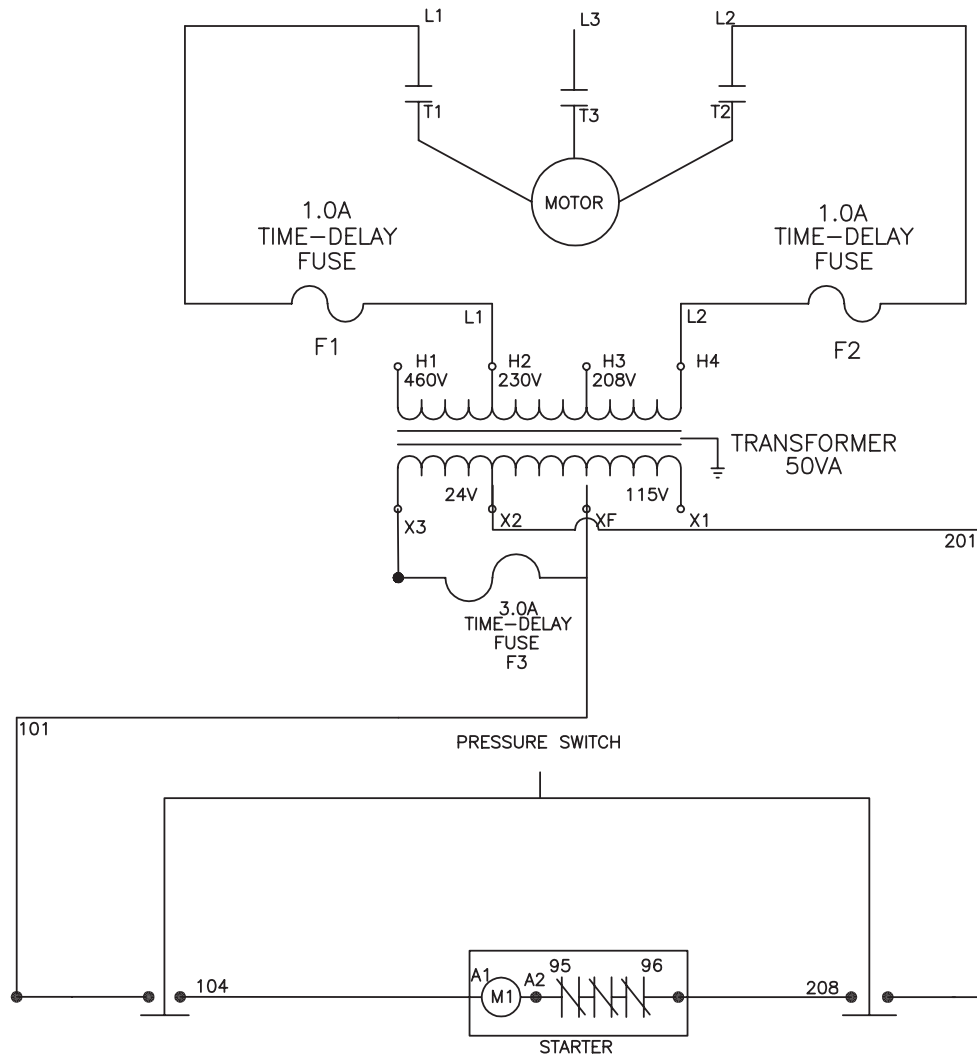
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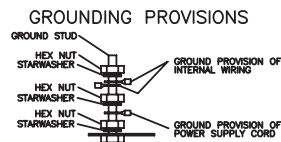
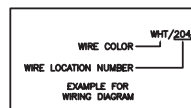
WIRING INFORMATION		
HP	VOLTAGE	WIRE SIZE
5	200	12
	230	14
7.5	200	10
	230	12
10	200	8
	230	10
15	200	8
	230	8
20	200	6
	230	6
25	200	4
	230	6
30	200	4
	230	4

NOTES:  
1) ALL WIRES ARE 16GA UNLESS OTHERWISE SPECIFIED

# WIRING SCHEMATIC STARTER (460V THREE PHASE)

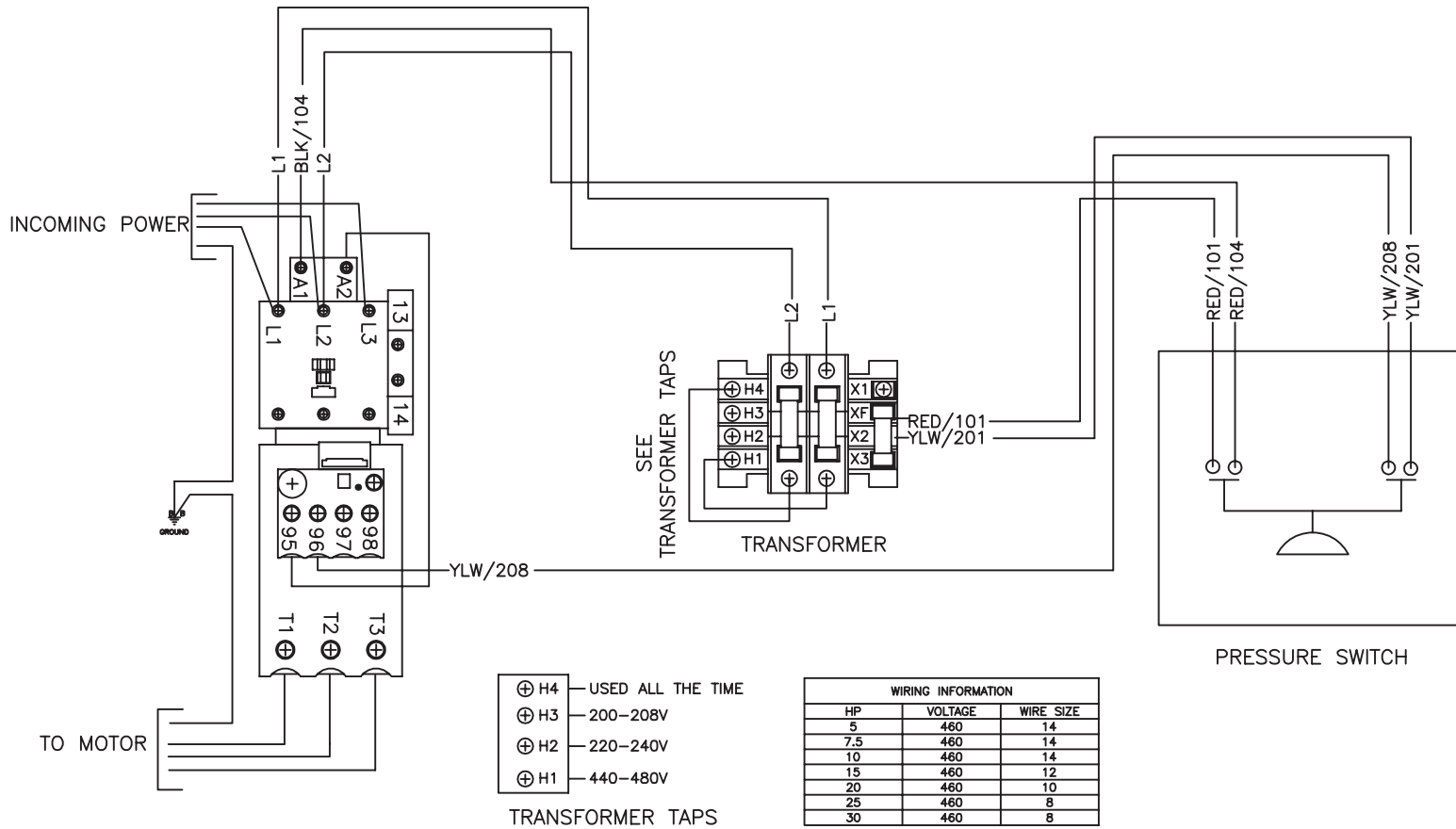


NOTES  
 1) ALL WIRES ARE 16GA UNLESS OTHERWISE SPECIFIED



WIRING SCHEMATIC STARTER 460V THREE PHASE 050411

# WIRING DIAGRAM STARTER (460V THREE PHASE)



WIRING DIAGRAM STARTER 460V THREE PHASE 050411

Manufactured by Mi-T-M  
50 MI-T-M Drive, Peosta IA 52068  
563-556-7484/ Fax 563-556-1235