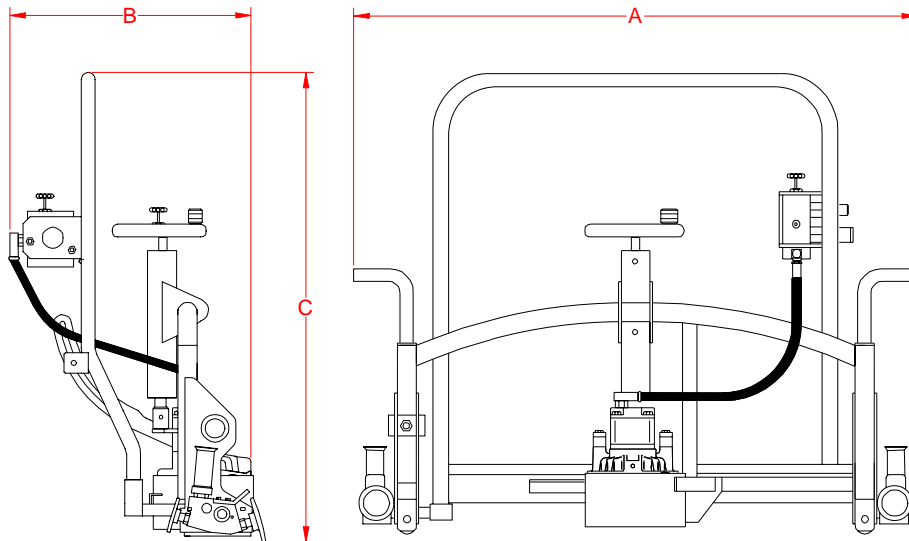


**05900 FROG/PROFILE GRINDER
 05950 TRIGGER VERSION**

The Matweld Frog/Profile Grinder is a lightweight, precision grinding machine. The grinder is designed for frog and finish grinding of field welds. The roll over feature makes ergonomic grinding of the rail to the original profile easy. An optional detachable Frog Grinding Outrigger is available for grinding Frogs. The flap type spark guard prevents sparks from being discharged on adjacent combustible material.



FLOW	PRESSURE	RPM	DIMENSIONS	WEIGHT
10 gpm (38 lpm)	2000 psi (140 bar)	4000	A - 40" (1016mm) B - 16" (406mm) C - 34" (864mm)	85 lbs (38.5 kg)

ACCESSORIES

- 05999 - FROG GRINDING OUTRIGGER
- 02199 - GRINDING STONE

MATWELD, INC.

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GENERAL SAFETY PRECAUTIONS:

TOOL OPERATORS AND MAINTENANCE PERSONNEL MUST ALWAYS COMPLY WITH THE SAFETY PRECAUTIONS GIVEN IN THIS MANUAL, AND WITH ALL STICKERS AND TAGS ATTACHED TO THE TOOL AND HOSE. ALL SAFETY PRECAUTIONS ARE GIVEN FOR YOUR SAFETY. READ TO UNDERSTAND AND FOLLOW ALL SAFETY, MAINTENANCE AND OPERATION INSTRUCTIONS BEFORE YOU USE OR MAINTAIN THE TOOL. REVIEW THE MANUAL DAILY BEFORE USING THE TOOL. IN ADDITION, FOLLOW ALL SAFETY GUIDELINES GIVEN YOU BY YOUR SUPERVISOR. DO NOT USE THE TOOL IF YOU HAVE ANY QUESTIONS ABOUT THE OPERATION, SAFETY OR MAINTENANCE OF THIS TOOL. FAILURE TO FOLLOW THESE INSTRUCTIONS CAN RESULT IN PERSONAL INJURY OR EQUIPMENT DAMAGE.

MATWELD HAS NO CONTROL OVER TOOL USE OR OPERATION ONCE IT LEAVES THE MATWELD PLANT. MATWELD HAS NO CONTROL OVER OPERATOR OR MAINTAINER SELECTION. THE CUSTOMER MUST ASSUME RESPONSIBILITY FOR THE TOOL'S SUITABILITY FOR A PARTICULAR FUNCTION, FOR ANYONE USING THE TOOL OR MAINTAINING THE TOOL REGARDING THEIR FITNESS TO USE THE TOOL OR REPAIR THE TOOL, UNDERSTANDING OF THE OPERATION AND SAFETY AND MAINTENANCE MANUAL, INTELLIGENCE TO USE GOOD JUDGMENT NECESSARY TO WORK SAFELY AND EFFICIENTLY WITHOUT ENDANGERING THEMSELVES OR BYSTANDERS IN THE WORK AREA.

- DO NOT OPERATE THE TOOL UNTIL YOU HAVE BEEN THOROUGHLY AND PROPERLY TRAINED OR UNDER THE SUPERVISION OF AN INSTRUCTOR.
- CHECK POWER SOURCE DAILY TO DETERMINE IF CORRECT FLOW AND PRESSURE ARE AVAILABLE. NEVER EXCEED FLOWS OR PRESSURES FOR THE TOOL BEING USED. PERSONAL INJURY OR DAMAGE TO THE TOOL CAN RESULT.
- OPERATORS MUST CLEAR THE WORK AREA OF NONESSENTIAL PERSONNEL. FLYING DEBRIS CAN CAUSE SERIOUS INJURY.
- THE OPERATOR MUST BE FAMILIAR WITH ALL PROHIBITED WORK AREAS SUCH AS UNSAFE GRADES, POOR FOOTING AREAS AND OVERHEAD HAZARDS.
- MAINTAIN BALANCE AND PROPER FOOTING AT ALL TIMES. NEVER OVERREACH TO THE EXTENT THAT A BROKEN PART OR SUDDEN MOVEMENT OF THE TOOL CAN CAUSE YOU TO LOSE YOUR BALANCE AND FALL, OR CAUSE INJURY TO YOUR SELF OR SOMEONE ELSE.

- WHEN WORKING NEAR ELECTRICAL CONDUCTORS, ALWAYS ASSUME THAT CONDUCTORS ARE ENERGIZED AND THAT HOSES AND CLOTHING CAN CONDUCT HARMFUL ELECTRICITY. USE HOSES LABELED AND CERTIFIED AS NONCONDUCTIVE.
- DO NOT OPERATE THE TOOL AT EXCESSIVE FLUID TEMPERATURES OPERATOR DISCOMFORT AND POTENTIAL BURNS CAN RESULT AT HIGH OIL TEMPERATURES.
- NEVER WEAR LOOSE CLOTHING THAT CAN GET ENTANGLED IN THE WORKING PARTS OF THE TOOLS OR BE CARELESS WITH HANDS, FEET OR OTHER BODY PARTS AROUND THE WORKING PARTS OF THE TOOLS. HYDRAULIC TOOLS EXERT HIGH TORQUE AND FORCE AND CAN CAUSE SERIOUS INJURY OR DEATH IF IMPROPERLY USED.
- TO AVOID PERSONAL INJURY OR EQUIPMENT DAMAGE, ALL TOOL REPAIR, MAINTENANCE OR SERVICE MUST ONLY BE PERFORMED BY AUTHORIZED AND PROPERLY TRAINED PERSONNEL.
- ALWAYS WEAR SAFETY EQUIPMENT SUCH AS OIL INJECTION RESISTANT WORK GLOVES, SAFETY GLASSES, SAFETY BOOTS, EAR PROTECTION AND OTHER SAFETY APPAREL DICTATED BY YOUR SUPERVISOR APPLICABLE FOR THE JOB YOU ARE DOING AND THE TOOL YOU ARE USING.
- DO NOT CLEAN INSPECT OR REPAIR THE TOOL WHILE CONNECTED TO THE POWER SOURCE. ACCIDENTAL ENGAGEMENT OF THE TOOL CAN CAUSE SERIOUS PERSONAL INJURY.
- OIL INJECTION HAZARD EXISTS WITH THIS TOOL. OIL INJECTION IS A CONDITION WHERE HYDRAULIC OIL IS INJECTED UNDER THE SKIN FROM PRESSURE IN THE LINE. ALWAYS WEAR GLOVES AND REPAIR ANY LEAKS IMMEDIATELY. NEVER CARRY A TOOL BY THE HOSES.
- DO NOT USE DAMAGED EQUIPMENT. IMMEDIATELY REPLACE ANY DAMAGED HOSES, FITTINGS, OR OTHER COMPONENTS SHOWING WIRE BRAID, NICKS, CUTS, DAMAGE OR ABRASIONS. FAILURE TO DO SO MAY RESULT IN EQUIPMENT DAMAGE AND / OR PERSONAL INJURY OR DEATH.
- CLEAN UP ANY OIL OR FLUID SPILLS IMMEDIATELY.

SAFETY PRECAUTIONS:

1. **ALWAYS** WEAR PROTECTIVE EQUIPMENT SUCH AS GLOVES, SAFETY GLASSES, EAR PROTECTION, SAFETY SHOES AND OTHER REQUIRED SAFETY EQUIPMENT.
2. **DO NOT** WEAR CLOTHING WHICH MAY BECOME ENTANGLED IN THE TOOL.
3. **ALWAYS** KEEP WORK AREA FREE OF TOOLS OR ANY OTHER OBJECTS WHICH MAY IMPAIR SOUND FOOTING.
4. **CAUTION** OIL INJECTION HAZARD EXISTS WITH THIS TOOL. OIL INJECTION IS A CONDITION WHERE THE HYDRAULIC OIL IS FORCED UNDER THE SKIN THROUGH PRESSURE IN THE LINE. ALWAYS WEAR GLOVES AND REPAIR LEAKS IMMEDIATELY.
5. **NEVER** CHANGE STONES WITH THE POWER SOURCE VALVE(S) IN THE "ON" POSITION, TURN THE POWER SOURCE "**OFF**".
6. **NEVER** ATTEMPT TO CARRY THE GRINDER WITH THE POWER SOURCE VALVE(S) IN THE "ON" POSITION, TURN THE POWER SOURCE "**OFF**".
7. **NEVER** TOUCH OR TRY TO STOP A MOVING STONE.
8. **ALWAYS** CHECK THE WORK AREA FOR ANY TRASH, WHICH MAY IGNITE FROM SPARKS, WELD SPLATTER OR SLAG.
9. **ALWAYS** CHECK THE AREA FOR SMOLDERING TIES OR TRASH BEFORE LEAVING THE SITE.
10. WHEN CHANGING STONES, FOLLOW ALL GRINDING STONE MANUFACTURES INSTRUCTIONS FOR SAFETY AND OPERATION. USE ONLY STONES THAT COMPLY WITH ANSI STANDARDS. BEFORE USING, RUN NEW GRINDING STONE FOR ONE MINUTE AT FULL SPEED TO CHECK FOR DEFECTS OR VIBRATION.
11. MOST HYDRAULIC OILS HAVE A FLASH POINT OF 500 DEGREES (F). MAKE SURE HOSES ARE COMPLETELY CLEAR OF SPARKS AND HOT DEBRIS. HAVE ANOTHER PERSON STAND CLOSE TO HYDRAULIC POWER SOURCE CONTROLS TO OBSERVE OPERATION AND FOR EMERGENCY SHUTDOWN IF NECESSARY.

05900/05950 PROFILE GRINDER

FLOW: 10 GPM (38 LPM)
PRESSURE: 2000 PSI (140 BAR)
MAX BACK PRESSURE: 300 PSI (21 BAR)
RPM: 4000

OPERATION:

1. WITH THE TOOL TURNED “**OFF**”, PLACE TOOL ON THE RAIL CAREFULLY AND ADJUST THE STONE CLEARANCE BY TURNING THE HANDWHEEL **COUNTERCLOCKWISE** TO RAISE THE STONE.
2. WITH POWER SOURCE IN THE “**OFF**” POSITION, CONNECT THE HOSES. DO NOT DRAG THE SERVICE HOSE BY PULLING WITH THE TOOL. LOOP THE HOSES IN THE WORK AREA IN SUCH A WAY TO RELIEVE STRESS ON THE HOSE AND QUICK DISCONNECT FITTINGS WHILE WORKING. BE AWARE OF HOSE LOCATIONS AT ALL TIMES.
3. CONNECT THE TOOL TO THE POWER SOURCE AND TURN POWER SOURCE “**ON**” TO SUPPLY 10 GPM.
4. TURN THE HANDWHEEL **CLOCKWISE** TO LOWER THE STONE TO BEGIN GRINDING OPERATION.
5. THE NORMAL WORK POSITION IS TO STAND BEHIND THE WORK HANDLE FACING THE HEIGHT ADJUSTMENT WHEEL. IN THIS POSITION YOU WILL SEE THE ON/OFF VALVE (QUICK DISCONNECT FITTINGS ATTACHMENT POINT) ON THE RIGHT END OF THE WORK HANDLE. THE KNOB ON TOP IS TURNED **CLOCKWISE** TO START THE GRINDER MOTOR. TURN **COUNTERCLOCKWISE** TO SHUT THE MOTOR OFF.
6. **GRASP THE WORK HANDLE FIRMLY BEFORE BEGINNING THE GRINDING OPERATION. BE SURE THE STONE IS BACKED OUT FOR CLEARANCE FROM THE RAIL.** WITH THE GRINDER RUNNING FEATHER THE STONE IN SLOWLY TURNING THE HEIGHT ADJUSTMENT HANDWHEEL **CLOCKWISE**. YOU WILL FEEL THE RESISTANCE AND SEE SPARKS AS THE STONE CONTACTS THE RAIL.
7. ROLL THE GRINDER SIDE TO SIDE TRAVERSING THE SECTION OF RAIL BEING DRESSED A LITTLE AT A TIME. **DO NOT ATTEMPT TO REMOVE TOO MUCH MATERIAL IN ONE PASS.** KEEP THE TOOL MOVING TO PREVENT BURNING OR OVERGRINDING THE RAIL.

05900/05950 PROFILE GRINDER

SIDE RAIL GRINDING:

1. THE PROFILE GRINDER CAN BE POSITIONED WITH THE BRIDGE FRAME AND GRINDING HEAD LAID OVER IN A HORIZONTAL PLANE TO ALLOW REMOVAL OF ROLL OVER OR OTHERWISE DRESSING THE SIDE OF THE RAIL HEAD.
2. WITH THE POWER TURNED “**OFF**”, BACK THE STONE UP **COUNTERCLOCKWISE** ON THE HEIGHT ADJUSTMENT WHEEL SEVERAL TURNS FOR CLEARANCE. LOOSEN THE POSITION LOCK HANDLE SLIGHTLY AND PULL THE FRAME BRIDGE TOWARDS YOU TO THE DESIRED POSITION. RE-TIGHTEN THE LOCK HANDLE.
3. THE HEIGHT RELATION OF THE FACE OF THE GRINDING STONE AND FRAME ROLLERS TO THE SIDE OF THE RAIL HEAD IS VARIABLE AND CAN BE ADJUSTED BY CHANGING THE POSITION OF THE WORK HANDLE RELATIVE TO THE BRIDGE FRAME.
4. TURN THE POWER “**ON**” AND FEATHER THE STONE INTO THE RAIL WHILE ROLLING THE GRINDER IN A SIDE TO SIDE MOTION. **DO NOT ATTEMPT TO REMOVE TOO MUCH MATERIAL IN ONE PASS.**

CHANGING THE GRINDING STONE:

1. TURN THE POWER SOURCE “**OFF**” AND DISCONNECT HOSES FROM THE TOOL, LAY THE TOOL ON ITS SIDE.
 2. POSITION THE TOOL FOR ACCESS TO THE BOTTOM OF THE CAST ALUMINUM DRIVE HOUSING.
 3. LOCK THE DRIVE SHAFT BY DEPRESSING THE LOCKING PIN LOCATED JUST BELOW THE MOTOR ON THE CAST HOUSING.
 4. IT IS RECOMMENDED TO UTILIZE A STRAP WRENCH WHEN REMOVING A WORN STONE. AGAIN THE SHAFT LOCK MUST ALSO BE ENGAGED FOR THIS OPERATION.
 - 5.) TIGHTEN THE NUT ON THE SHAFT. **DO NOT OVER TIGHTEN** AS THIS MAY CAUSE THE STONE TO FAIL WHILE IN USE.
 - 6.) RELEASE THE LOCKING MECHANISM AND CHECK TO MAKE SURE IT IS RELEASED FROM THE SHAFT **BEFORE** BEGINNING TO USE.
- **REFER TO MANUFACTURER’S SPECIFICATIONS FOR TORQUE SETTINGS ON STONE ATTACHMENT**

WHEEL PIVOT ADJUSTMENTS FOR PROFILE OR FROG GRINDING OPERATIONS.

NOTE: WHEN GRINDING FROGS THE SPARK SHIELD MUST BE RAISED TO THE TOP POSITION.

GRINDING WINGS:

FOR GRINDING A WING OF THE FROG, PLACE THE GRINDER ON TOP OF THE WING WITH THE ROLLERS RESTING ON TOP OF THE WING TO BE GROUND. ADJUST EACH WHEEL PIVOT TO THE POSITION SHOWN IN FIGURE 1. GRINDING IS ACCOMPLISHED BY MOVING THE GRINDER BACK AND FORTH IN LINE WITH THE RAIL. WHEN FINISHED WITH ONE WING, ROTATE THE ENTIRE GRINDER 180 DEGREES AND PLACE IT ON THE OTHER WING.

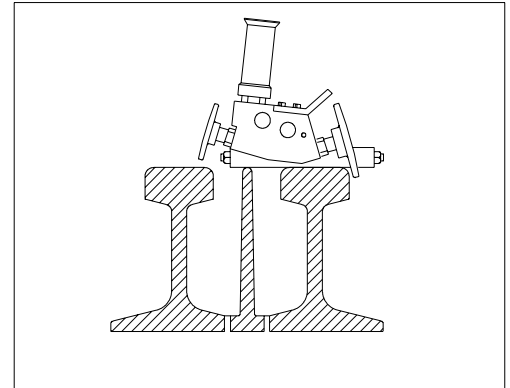


FIGURE 1
CROSS SECTION OF TYPICAL
FROG AT 1/2" POINT

GRINDING THE POINT:

FOR GRINDING THE POINT OF A FROG, PLACE THE GRINDER ON TOP OF THE POINT WITH THE ROLLERS RESTING ON THE TOP OF THE POINT. ADJUST EACH WHEEL PIVOT TO THE POSITION SHOWN IN FIGURE 2. GRINDING IS ACCOMPLISHED BY MOVING THE GRINDER BACK AND FORTH IN LINE WITH THE RAIL. IT MAY BE NECESSARY TO ROTATE THE ENTIRE GRINDER 180 DEGREES AND PLACE IT ON THE OTHER SIDE OF THE POINT IN ORDER TO COMPLETELY GRIND THE WIDTH OF THE POINT. THE EXTENSION ASSEMBLY IS NORMALLY USED DURING POINT GRINDING OPERATIONS.

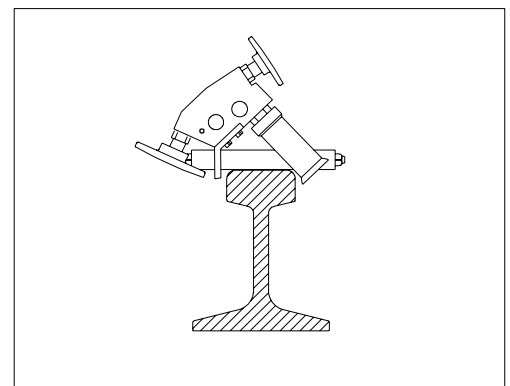


FIGURE 2
CROSS SECTION OF TYPICAL
FROG AT 1/2" POINT

PROFILE GRINDING:

FOR PROFILE GRINDING OF RAIL, PLACE THE GRINDER ON TOP OF THE RAIL WITH THE ROLLERS RESTING ON THE TOP OF THE RAIL TO BE GROUND. ADJUST EACH WHEEL PIVOT TO THE POSITION SHOWN IN FIGURE 3. GRINDING IS ACCOMPLISHED BY MOVING THE GRINDER BACK AND FORTH IN LINE WITH THE RAIL.

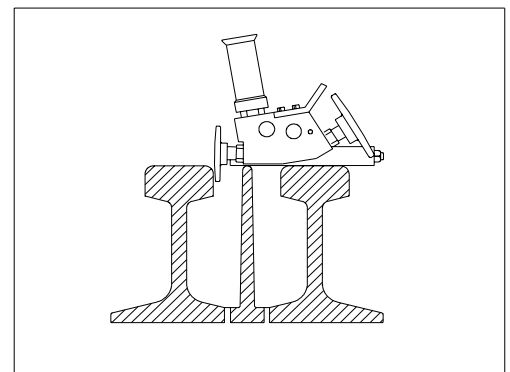


FIGURE 3
CROSS SECTION OF TYPICAL
RAIL

MAINTENANCE:

1. CHECK TOOL **DAILY** FOR PROPER OPERATION, LEAKS, OR DAMAGE.
2. INSPECT HOSES **DAILY**. REPLACE CUT, BURNED, OR OTHERWISE DAMAGED HOSES.
3. KEEP QUICK DISCONNECT COUPLERS **CLEAN AND LUBRICATED**.
4. USE HYDRAULIC FLUIDS THAT COMPLY WITH HTMA SPECIFICATION 5.7, THE HYDRAULIC FLUID SHOULD HAVE A VISCOSITY BETWEEN 100 AND 400 SSU (20-82 CENTISTOKES) AT THE MAXIMUM AND MINIMUM EXPECTED OPERATING TEMPERATURES. PETROLEUM BASED HYDRAULIC FLUIDS WITH ANTI-WEAR PROPERTIES AND A VISCOSITY INDEX OF OVER 140 WORK FOR A WIDE RANGE OF OPERATING CONDITIONS.

THE FOLLOWING OILS MEET HTMA SPECIFICATION 5.7:

AMOCO RYKON MV	CITGO A/W ALL TEMP
SUNVIS 706	MOBIL D.T.E. 13
CHEVRON EP-MV	TEXACO "RANDO" HDAZ

OTHER FLUIDS THAT MEET OR EXCEED THIS SPECIFICATION CAN BE USED.

*SEE **COLD WEATHER OPERATION** HYDRAULIC OIL NOTE.

5. HAVE TOOL INSPECTED, AT LEAST ANNUALLY, BY MATWELD OR A MATWELD QUALIFIED SERVICE REPRESENTATIVE TO DETERMINE IF TOOL IS IN NEED OF SAFETY CHANGES OR WORN PART REPLACEMENT.
6. CONTACT MATWELD ON A PERIODIC BASIS, AT LEAST ANNUALLY, FOR SERVICE BULLETINS, SAFETY NOTICES, OR OTHER IMPORTANT INFORMATION PERTAINING TO THIS TOOL.

COLD WEATHER OPERATION:

HYDRAULIC SYSTEM PERFORMANCE IS AFFECTED WHEN THE TEMPERATURE DROP BELOW 50 F. THEREFORE MEASURES SHOULD BE TAKEN TO PRE-WARM TOOLS AND FLUID BEFORE OPERATING

REPAIR AND TROUBLESHOOTING:

IF SYMPTOMS OF POOR PERFORMANCE DEVELOP, THE FOLLOWING CHART CAN BE USED AS A GUIDE TO CORRECT THE PROBLEM. WHEN DIAGNOSING PROBLEMS WITH OPERATION OF THE GRINDER, ALWAYS CHECK THAT THE HYDRAULIC POWER SOURCE IS SUPPLYING THE CORRECT HYDRAULIC FLOW AND PRESSURE, AS LISTEN IN THE SPECIFICATIONS. USE A FLOW AND PRESSURE TEST GAUGE TO BE ACCURATE (MATWELD PART NO. 03600). CHECK THE FLOW WITH THE HYDRAULIC OIL TEMPERATURE AT LEAST 80 DEGREE F/27 DEGREE C.

PROBLEM	CAUSE	REMEDY
Grinder does not run	1. Hydraulic power source not functioning. 2. Couplers or hoses blocked. 3. Hydraulic motor failure. 4. Hydraulic lines not connected.	See general note above locate and remove restriction inspect and repair connect lines
Grinder operates to slow	5. Hydraulic motor speed to slow. 6. High backpressure. 7. Couplers or hoses blocked. 8. Oil to hot (above 140f/60c). 9. Oil to cold (below 60f/16c). 10. Hydraulic motor worn. 11. Flow control malfunction.	See general note above. Check for back pressure above 250 psi 17 bar. See note 2 Turn fan on. See cold weather operation of this manual. Have grinder serviced at authorized service center.
Grinder operates to fast.	12. Flow control malfunction	See note 11.

REVIEW OF HYDRAULIC PRINCIPLES

A. TOOL CIRCUIT

1. HYDRAULIC FORMULAS:

$$\text{GPM} = \frac{\text{CID X RPM}}{231} \qquad \text{HP} = \frac{\text{GPM X PSI}}{1456.9}$$

Example: HP required to deliver 10 GPM at 1500 PSI.

$$\frac{10 \text{ GPM X } 1500 \text{ PSI}}{1456.9} = \frac{15000}{1456.9} = 10.3 \text{ HP}$$

(subtract back pressure for tool HP)

Estimated HP delivered by pump or used by tool.

GPM	PSI					
	500	1,000	1,500	2,000	2,500	3,000
3	1.03	2.06	3.09	4.12	5.15	6.18
5	1.72	3.43	5.15	6.86	8.58	10.30
10	3.43	6.86	10.3	13.70	17.20	20.60
15	5.15	10.30	15.40	20.60	25.70	30.90

2. BACK PRESSURE

BACK PRESSURE MEASURED AT THE TOOL RETURN PORT MUST NOT EXCEED THE MANUFACTURERS BACK PRESSURE RATING. MOST MANUFACTURERS LIST THE MAXIMUM BACK PRESSURE FOR THEIR HYDRAULIC TOOLS AT 250 PSI. BACK PRESSURE MEASURED ON THE RETURN SIDE OF THE TOOL IS THE FORCE REQUIRED TO GET THE OIL BACK TO THE TANK. IN ALMOST ALL CASES THE LOWER THE BACK PRESSURE THE BETTER THE TOOL PERFORMANCE. FIRST, THE BACK PRESSURE IS SUBTRACTED FROM THE MAXIMUM TOOL PRESSURE TO ARRIVE AT A MAXIMUM TOOL OPERATING PRESSURE. FOR EXAMPLE, TOOLS WITH 2000 PSI OPERATING PRESSURE ARE INSTALLED ON A SYSTEM WITH 250 PSI BACK PRESSURE. THIS LEAVES 1750 PSI AS A MAXIMUM TOOL PRESSURE. IMAGINE A SYSTEM WITH 500 PSI BACK PRESSURE. 2000 MINUS 500 PSI BACK PRESSURE LEAVES ONLY 1500 PSI FOR THE TOOL. SECOND, TOOLS ARE DESIGNED FOR PRESSURE TO BUILD ON THE PRESSURE SIDE OF THE TOOL. IF TOO MUCH PRESSURE BUILDS ON THE RETURN SIDE, NOT ONLY IS PERFORMANCE EFFECTED, BUT SEALS MAY BLOW. THIS IS WHY IT IS VERY IMPORTANT TO DIRECT THE FLOW INTO THE TOOL CORRECTLY. REVERSING THE HOSES TO TEST MAY RESULT IN BLOWN SEALS, DAMAGE TO THE TOOL, AND PERSONAL INJURY.

05900/05950 PROFILE GRINDER
GENERAL NOTES:

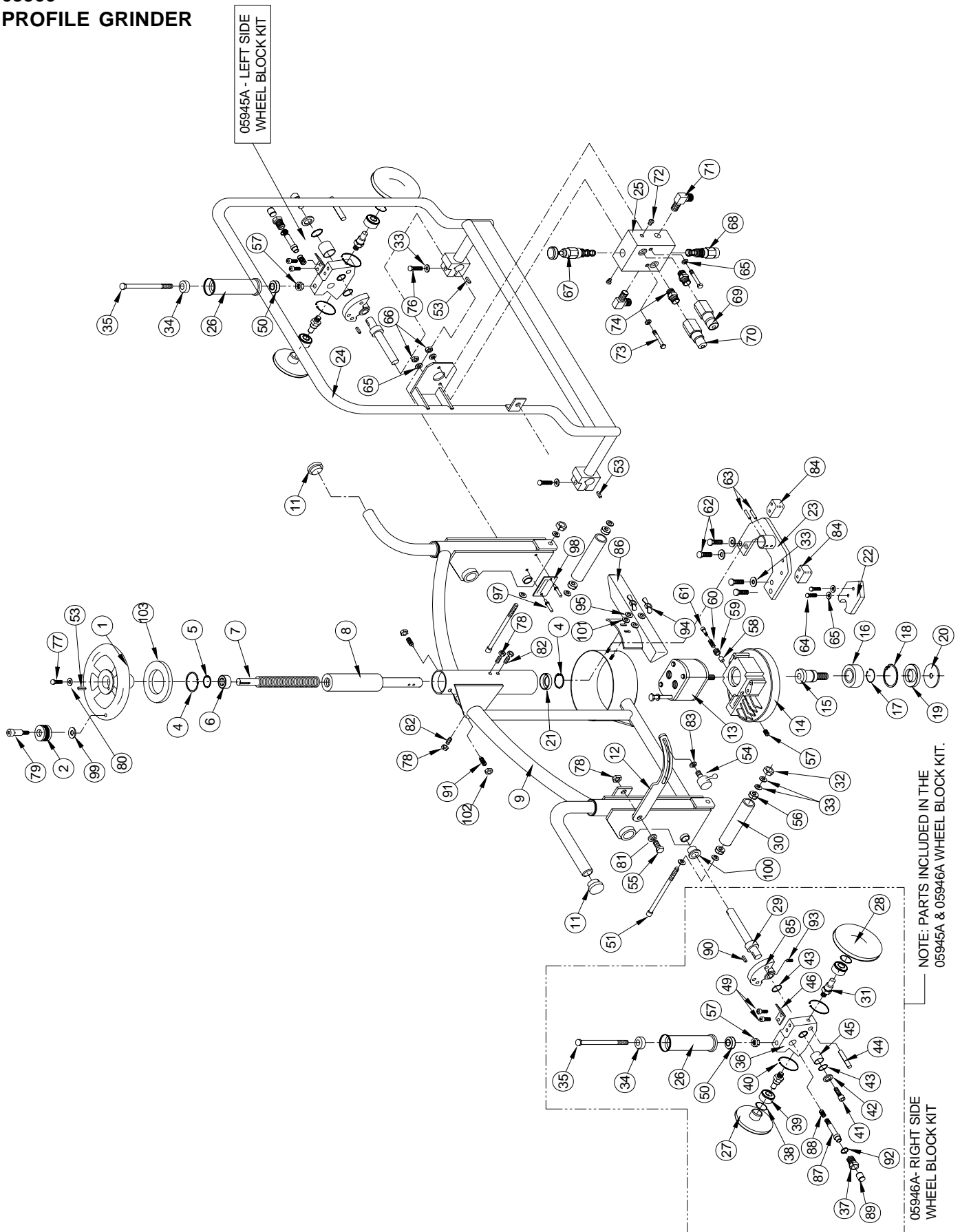
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05900
PROFILE GRINDER

ITEM NO.	PART NO.	DESCRIPTION	QTY.	ITEM NO.	PART NO.	DESCRIPTION	QTY.
1	05919	HAND WHEEL	1	54	01909	LOCKING KNOB	1
2	03930A	HAND WHEEL KNOB	1	55	A1043	3/8-16 x 1 1/4 HEX HEAD BOLT	1
4	00705	1 5/8 INTERNAL RET. RING	2	56	05931	ROLLER BEARING	4
5	00706	3/4 EXTERNAL RET. RING	1	57	A2065	7/16-14 FLANGE NUT	1
6	00713	HEIGHT ADJ. BEARING	1	58	00412	LOCKING PIN	1
7	05917	HEIGHT ADJ. SCREW	1	59	00415	PLUG	1
8	05916	HEIGHT ADJ. SHAFT	1	60	00413	SPRING	1
9	05901	FRAME	1	61	A6910	DIA. 1/4 x 1 SHOULDER BOLT	1
10	05925	OUTRIGGER KNOB	1	62	A1025	5/16-18 x 1 3/4 HEX HEAD BOLT	4
11	05436	HANDLE PLUG	2	63	A6101	1/4 x 1 /12 ROLL PIN	2
12	05905	POSITIONING ARM	1	64	A1002	1/4-20 x 1 HEX HEAD BOLT	2
13	00410B	MOTOR	1	65	A2190	1/4 SAE FLAT WASHER	6
14	03402	BEARING HOUSING	1	66	A2046	1/4-20 NYLOCK NUT	2
15	048001	DRIVE SHAFT	1	67	00137	ON/OFF VALVE	1
16	046003	DRIVE SHAFT BEARING	1	68	00796	FLOW CONTROL VALVE	1
17	046005	EXTERNAL RET. RING	1	69	00145	QUICK DISCONNECT COUPLER	1
18	00403	INTERNAL RET. RING	1	70	00146	QUICK DISCONNECT NIPPLE	1
19	046004	SEAL	1	71	405-08-08	1/2 NPT x -08 JIC 90 ELBOW	2
20	02101	STONE FLANGE	1	72	231P-04	-4 ORING PLUG	2
21	00710	SEAL	1	73	A1009	1/4-20 x 2 3/4 HEX HEAD BOLT	2
22	05903	SLIDE CUSHION	1	74	69-08-08	1/2 NPT HEX NIPPLE	2
23	05902	BEARING HOUSING BRACKET	1	76	A1023	5/16-18 x 1 1/4 HEX HEAD BOLT	2
24	05906	HANDLE	1	77	A1041	3/8-16 x 3/4 HEX HEAD BOLT	1
25	00795	MANIFOLD	1	78	A1454	3/8-16 HEX JAM NUT	4
26	05910	HANGING ROLLER	2	79	A1481	DIA. 1/2 x 1 SHOULDER BOLT	1
27	05914	SMALL FLANGE WHEEL	2	80	A3860	3/8 x 1 1/4 FENDER WASHER	1
28	05913	LARGE FLANGE WHEEL	2	81	A2192	3/8 SAE FLAT WASHER	1
29	05909	AXLE	2	82	A5625	3/6-16 x 3/4 SET SCREW	3
30	05908	RAIL ROLLER	2	83	A2191N	NYLON SPACER	1
31	05912	FLANGE WHEEL STUD	4	84	05920	LIFT PLATE SPACER	2
32	A2048	5/16-18 NYLOCK NUT	2	85	05924	AXLE INDEX PLATE	2
33	A2191	5/16 SAE FLAT WASHER	14	86	05935	SPARK SHIELD	1
34	05947	TOP HANGING ROLLER BEARING	2	87	05936	LOCATING PLUNGER	2
35	A1075	7/16-14 x 4 HEX HEAD BOLT	2	88	05937	SPRING	2
36	05907	WHEEL BLOCK	2	89	05938	KNOB	2
37	05922	WHEEL BLOCK LOCK GLAND	4	90	05939	1/8 x 3/8 SQ. KEY	2
38	05933	RET. RING	4	91	A5624	5/16-18 x 1/2 NYLON TIP SET SCREW	2
39	05929	ROLLER FLANGE BEARING	4	92	05941	-908 ORING	2
40	05934	RET. RING	2	93	A5590	#10-24 x 1/4 SET SCREW	2
41	A1000	1/4-20 x 1/2 HEX HEAD BOLT	2	94	A2500	5/16-18 WING NUT	2
42	A3856	1/4 x 1 FENDER WASHER	4	95	A3810	5/16 LOCK WASHER	2
43	568-018	018 ORING	2	97	SSB4-6S	1/8 x 3/8 SS RIVET	4
44	A6080	3/16 ROLL PIN	2	98	SERIAL TAG	SERIAL NO. TAG	1
45	05930	BUSHING	2	99	05940	1/2 WAVE WASHER	1
46	05915	HANGING ROLLER ANCHOR	4	100	05932	FLANGE BEARING	4
49	05948	5/16-18 x 1/2 SHCS	2	101	A2162	5/16 USS WASHER	2
50	A5446	BOTTOM HANGING ROLLER BEARING	2	102	A1452	5/16-18 HEX JAM NUT	2
51	A1039	5/16-18 x 6 HEX HEAD BOLT	3	103	A2200	3/4 x 14 GA. FLAT WASHER	1
53	00806-01	3/16 x 3/4 SQ. KEY			05955	HOSE	2

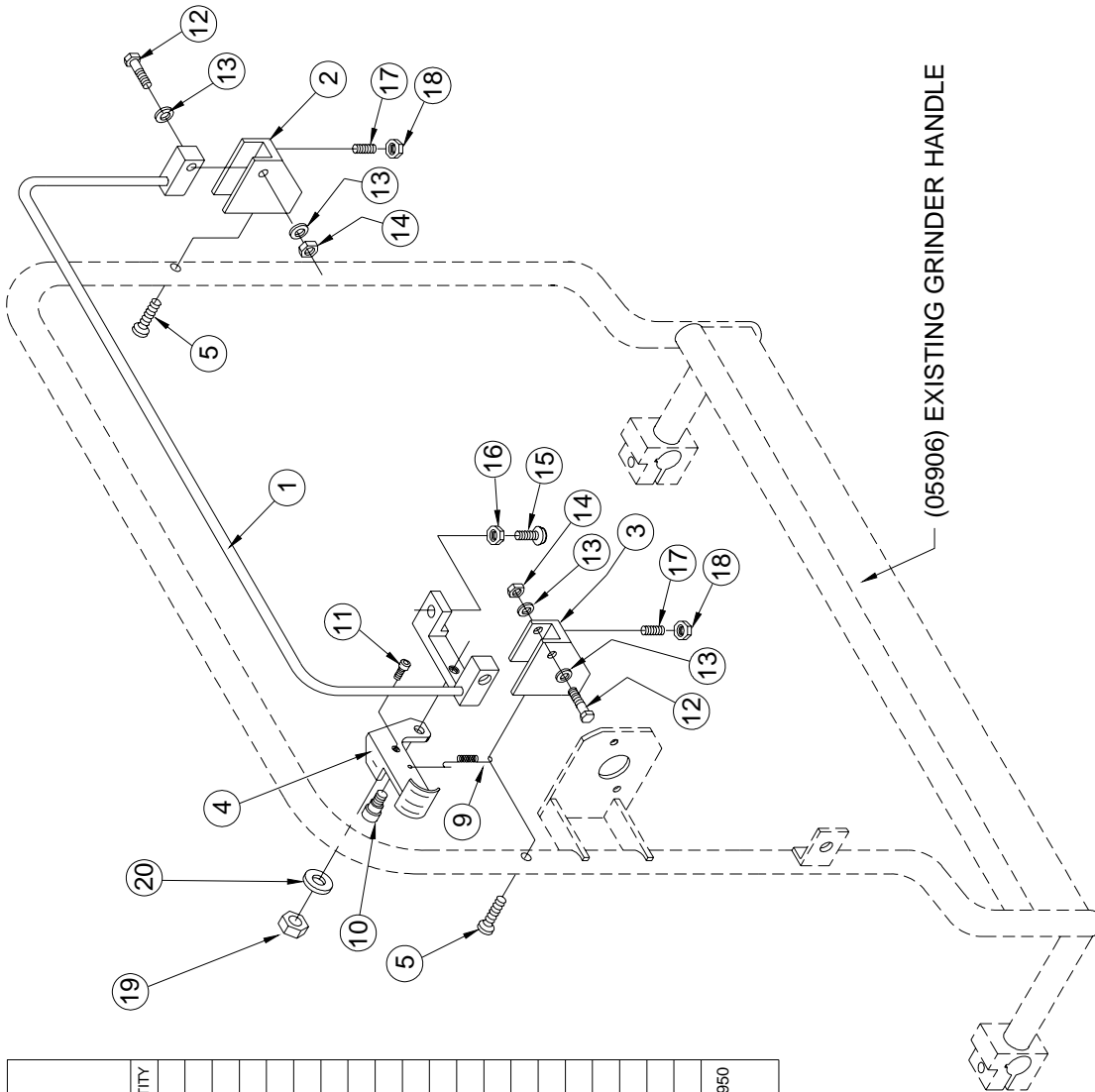
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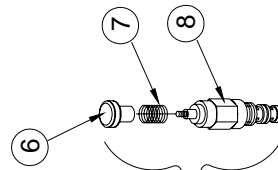
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05999
PROFILE GRINDER
TRIGGER KIT
 REV. 0 01/01



05950 PROFILE GRINDER TRIGGER KIT			
05/2001 REV 1			
ITEM NO.	PART NO.	DESCRIPTION	QUANTITY
1	05951	TRIGGER BAIL	1
2	05952	MOUNTING BLOCK (LEFT)	1
3	05953	MOUNTING BLOCK (RIGHT)	1
4	05956	SAFETY LOCK	1
5	A6355	1/4-20 X 1 1/2 BHCS	2
6	05954	PLUNGER	1
7	01627	VALVE SPRING	1
8	05960	TRIGGER VALVE	1
9	05961	SAFETY LOCK SPRING	1
10	A6920	3/8-16 X 3/4 SHOULDER BOLT	1
11	A5434	1/4-20 X 3/4 SHCS	1
12	A1025	5/16-18 X 1 3/4 HEX HEAD BOLT	2
13	A2191	5/16 SAE FLAT WASHER	4
14	A2048	5/16-18 NYLOCK NUT	2
15	A1038	3/8-16 X 1 1/2 CARRIAGE BOLT	1
16	A1454	3/8-16 JAM NUT	1
17	A5608	1/4-20 X 7/8 SET SCREW	2
18	A1450	1/4-20 JAM NUT	2
19	A2046	1/4-20 NYLOCK NUT	1
20	A2190	1/4 SAE FLAT WASHER	1

NOTE: WHEN CONVERTING A STANDARD 05900 GRINDER TO A 05950 TRIGGER VERSION, BE SURE TO INSTALL NEW TRIGGER VALVE ASSEMBLY (ITEMS 6, 7 AND 8) INTO MANIFOLD.



SEE NOTE ABOVE

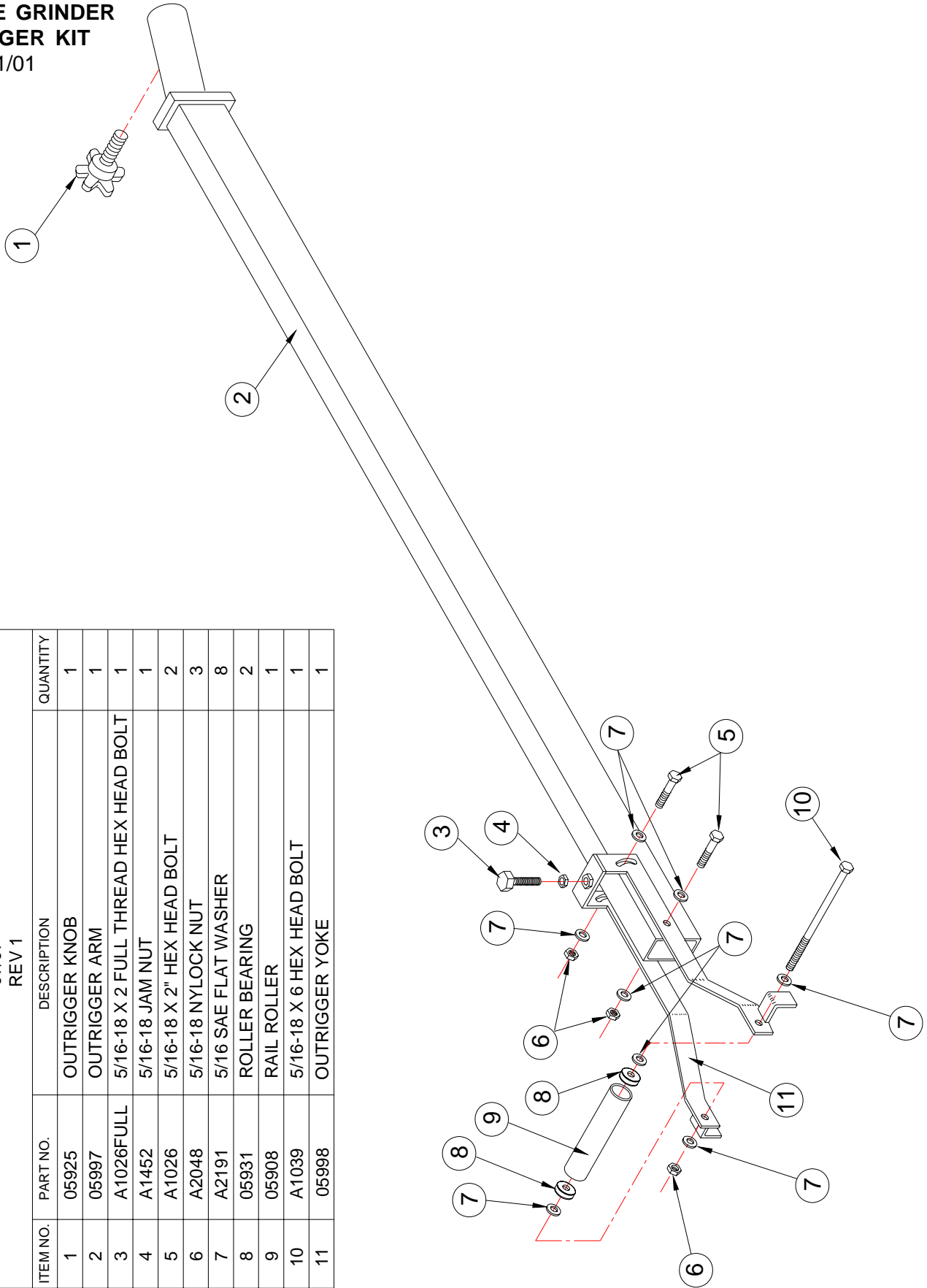
MATWELD, INC.

PHONE:(270) 444-0085

FAX:(270) 443-6180

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05999
PROFILE GRINDER
OUTRIGGER KIT
 REV. 0 01/01



05999 PROFILE GRINDER OUTRIGGER KIT			
ITEM NO.	PART NO.	DESCRIPTION	QUANTITY
1	05925	OUTRIGGER KNOB	1
2	05997	OUTRIGGER ARM	1
3	A1026FULL	5/16-18 X 2 FULL THREAD HEX HEAD BOLT	1
4	A1452	5/16-18 JAM NUT	1
5	A1026	5/16-18 X 2" HEX HEAD BOLT	2
6	A2048	5/16-18 NYLOCK NUT	3
7	A2191	5/16 SAE FLAT WASHER	8
8	05931	ROLLER BEARING	2
9	05908	RAIL ROLLER	1
10	A1039	5/16-18 X 6 HEX HEAD BOLT	1
11	05998	OUTRIGGER YOKE	1

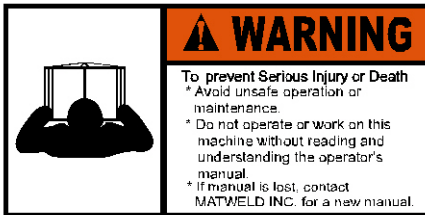
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05900/05950
 PROFILE GRINDER
 DECAL LEGEND:



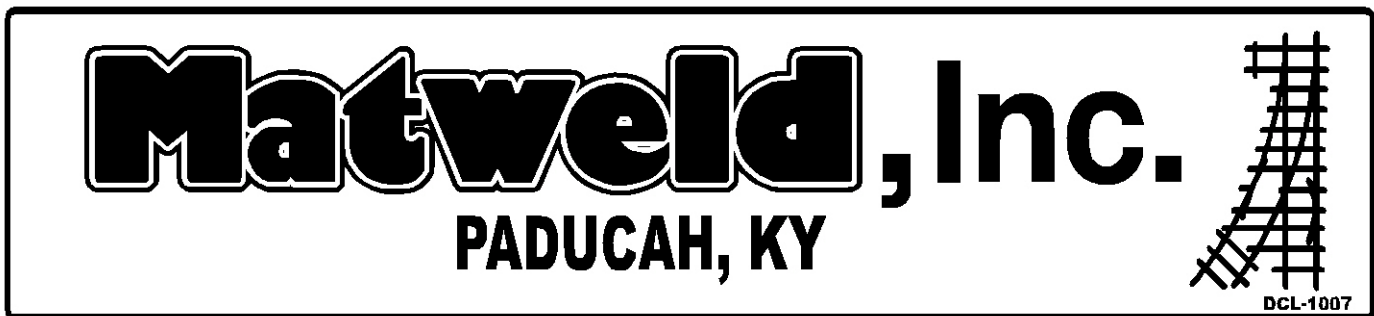
DCL- 1001



DCL- 1002



DCL-1074



DCL-1007



DCL-1008



DCL -1016

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CUSTOMER INFORMATION:

Name _____

Company _____

Serial # of your Matweld tool _____

(Upon receiving your Matweld tool, make sure to list serial number above so that a good record is kept for order information.)

MATWELD HYDRAULIC TOOL LIST

All Matweld Hydraulic Tools operate at 5 or 10 GPM @ 2000 PSI

POWER UNITS:

00100K – GASOLINE POWERED (1) 10 GPM OR (2) 5 GPM CIRCUITS

02900A – DIESEL (1) 10 GPM OR (2) 5 GPM CIRCUITS

(OPTIONAL CATALYTIC EXHAUST AND/OR MSHA CERTIFIED)

05500 – TWIN POWER DUAL CIRCUIT (1) 10 GPM OR (2) 5 GPM CIRCUITS & 5000 WATT GENERATOR

02050K – GASOLINE POWERED (1) 5 GPM

03700A – ELECTRIC POWER (1) 10 GPM OR (2) 5 GPM CIRCUITS

GRINDERS:

09200A – PRECISION FROG GRINDER

06000 – PROFILE GRINDER

06900 & 06900A – MULTI-PURPOSE GRINDER (TRIGGER VERSION AVAILABLE)

05900 – FROG/PROFILE GRINDER (TRIGGER VERSION AVAILABLE)

00700 – RAIL SURFACING GUIDE

04600 – STRAIGHT STONE CW ROTATION (TRIGGER VERSION AVAILABLE)

04700 – STRAIGHT STONE CCW ROTATION (TRIGGER VERSION AVAILABLE)

07500 – CHAMFER TOOL

04800 – CUP STONE GRINDER (TRIGGER VERSION AVAILABLE)

00600C – CUP STONE GRINDER

05400 – ANGLE GRINDER

05600 – BULL NOSE GRINDER

02400 – 10" OR 14" FROG AND SWITCH GRINDER

TRACK TOOLS:

03900A – REVERSING RAIL SAW

05100A & 05100B – POWER WELD SHEAR

03500 – SELF FEED RAIL DRILL

01600A – 5 GPM 1" IMPACT WRENCH

04500D – 1/2" HYDRAULIC DRILL IMPACT WRENCH

08200 – TAMPER

02800 – 60 TON BRIDGE SPREADER

01200 – SPRING ANCHOR APPLICATOR

01100A – SPIKE PULLER (SINGLE, 2 STAGE & TRIGGER VERSIONS AVAILABLE)

00800A – 16" RAIL SAW

05000 – HAND PUMP WELD SHEAR

01500 – RAIL DRILL

02500 – 10 GPM 1" IMPACT WRENCH

03100C – RAIL PULLER

08300 – SPIKE DRIVER

07650 – HYDRAULIC CLIP TOOL

OTHER PRODUCTS:

HYDRAULIC MANIFOLDS

HYDRAULIC TEST GAUGES

HOSE REELS

HYDRAULIC HOSES

ACCESSORIES

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