

CRAFCO

26232

INFRARED HEATER

P.N. 42400

CRAFCO INFRARED HEATER

PART NUMBER 42400

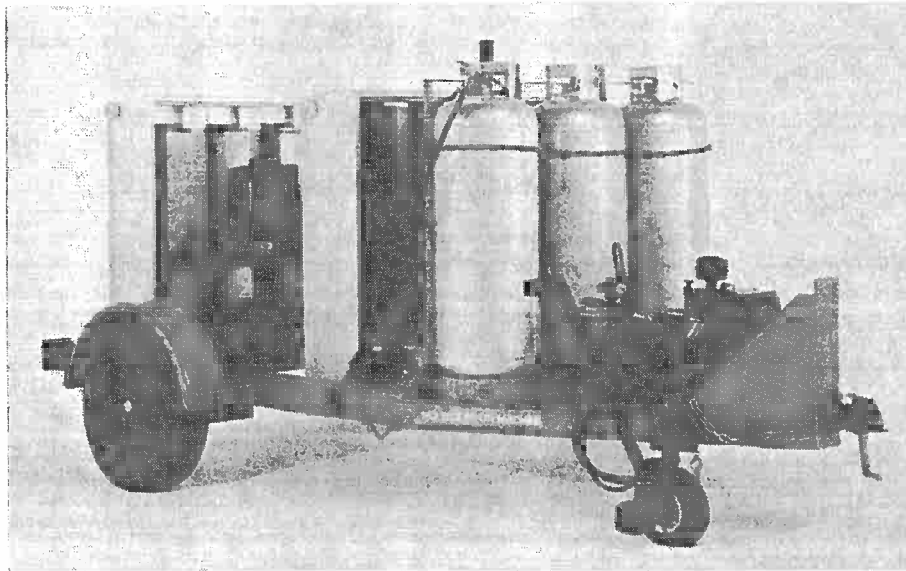


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SAFETY PRECAUTIONS

- *High operating temperatures of Infrared Machine require protective clothing and gloves be worn by operator.
 - *Always wear eye protection.
 - *Observe all **CAUTION & WARNING** signs posted on machine.
 - *Avoid bodily contact with hot metal or serious burns may result.
 - *Read Operator Manual thoroughly before operating machine.
 - *Make sure operator is familiar with machine operation.
 - *Do not operate in closed building or confined areas.
 - *Shut-down heater & engine prior to refilling LPG Tanks.
 - *Keep hands, feet and clothing away from all moving parts.
 - *Always keep a fire extinguisher near the unit. Maintain extinguisher properly and be familiar with its use.
 - *Follow operating instructions for starting and shut-down.
 - *Replace any hoses which show signs of wear, fraying or splitting. Be sure all fittings and joints are tight and leakproof.
 - *Precaution is the best insurance against accidents.
 - *The E-Z Pavement heater should not be left unattended with heater lit.
 - *Tighten all bolts and screws and hoses after every 100 hours of operation.
- CRAFCO, INC. assumes no Liability for an accident or injury incurred through improper use of the machine.

INFRARED HEATER LIMITED WARRANTY

Crafco, Inc., through its authorized distributor, will replace for the original purchaser free of charge any parts found upon examination by the factory at Chandler, Arizona, to be defective in material or workmanship. This warranty is for a period within 60 days of purchase date, but excludes engine/or components, tires, and battery as these items are subject to warranties issued by their manufacturers.

After 60 days, Crafco, Inc. warrants structural parts, excluding heating system, hydraulic components, and electrical components for a period of (1) one year from date of delivery. Crafco, Inc., shall not be liable for parts that have been damaged by accident, alteration, abuse, improper lubrication/maintenance, normal wear, or other cause beyond our control.

The warranty provided herein extends only to the repair and/or replacement of those components on the equipment covered above and does not cover **labor** costs. The warranty does not extend to incidental or consequential damages incurred as a result of any defect covered by this warranty.

All transportation and labor costs incurred by the purchaser in submitting or repairing covered components must be bore by the purchaser.

Crafco, Inc., specifically disavows any other representation, warranty or liability related to the condition or use of the product.

Warning - Use of replacement parts other than genuine Crafco parts may impair the safety or reliability of your equipment and nulifies any warranty.

CRAFCO, INC.

WARRANTY CLAIM INSTRUCTIONS

Please follow the instructions stated below when calling in a Warranty Claim. Failure to follow these procedures may be cause to void the warranty.

- (1) Call your local CrafcO Distributor. If you do not know who your local distributor is, call a CrafcO Customer Service Representative, (Toll Free 1-800-528-8242) for name, location and telephone number.
- (2) On contacting the Distributor, be prepared to identify the machine type, model number and serial number, also the date of purchase if available.
- (3) Should the cause of the malfunction be a defective part, the Distributor will advise you of the procedure to follow for a replacement.
- (4) The warranty is valid only for parts which have been supplied or recommended by CrafcO, Inc.

If you have any additional questions regarding warranty repairs and parts, please do not hesitate to call toll free 1-800-528-8242.

CRAFCO, INC.
6975 WEST CRAFCO WAY
CHANDLER, AZ 85226
(602) 276-0406
Toll Free 1-800-528-8242

SPECIFICATIONS

Heater Panels (2)	4'x4', Four (4) Heaters Per Panel
Fuel Delivery	Fueled through a Manifold and regulated by High Pressure Regulators.
Maximum Heat Output	8 Heaters with maximum output 75,000 B.T.U. each (total maximum output 600,000 B.T.U.)
Engine - Kohler	8 H.P. (only used with the Drive Wheel Option).
Drive Wheel (Option)	Hydraulically driven, Forward-Reverse, variable speed control.
Axles	2000 lbs. capacity. 2 independent Torsional Axles.
Tires (2)	185R-14-1850 # each.
Dry Weight	1600 lbs.
Propane Bottles (3)	100 lbs. each
Running Time	10 hours on three (3) bottles at full power.

INFRARED HEATER OPERATING INSTRUCTIONS

INTRODUCTION

The CRAFCO INFRARED HEATER was developed to heat roadways where repair is required.

DO NOT operate machine without following these instructions.

1. Fill Propane Tanks
2. Check Engine Crankcase Oil (refer to Engine Operators Manual)
3. Check Hydraulic Fluid Level at Ambient Temperature. Add if necessary to bring fluid to correct level.
4. All LPG Valves should be in Closed Position.
5. Check Battery Voltage.
6. Loosen Drive Wheel Retainer Nuts, swing wheel into lowered position and retighten Retainer Nuts.
7. Open LPG Tanks as required.
8. Start Engine.
9. Check Power Wheel Operation.
10. Raise Tongue Jack for Operation of Unit.
11. Remove Lock Pins from Heater Panels.
12. Light Heater Panels:
 - A.) Light Hand Torch.
 - B.) Open Required LPG Manifold Control Valve.
 - C.) Open individual Infrared Heaters as required.
 - D.) Move flame from Hand Torch across Heaters until required Heaters are lit.
 - E.) LPG Pressure should be set between 4 to 6 PSI.
13. Lower Panels:
 - A.) Always lower Front Panel first when both panels are to be used. (Refer to page. 10 & 15 Items 21, 22.)
 - B.) Panels must be clear of ground when relocating Infrared Heater.

CAUTION: DO NOT raise front heater panel above frame when heater is lit.
14. Heat pavement surface until asphalt is thoroughly heated and softened (generally between 5 to 10 minutes depending on pavement conditions.)
15. Raise panel, check condition of heated surface, and add new product as required.
16. Move to next required repair.

SHUTDOWN

1. Close LPG Manifold Valves.
2. Close individual Heater Valves.
3. Raise Heater Panels and Pin with Lock Pin.
4. Lower Tongue Jack and return Drive Wheel to the Travel Position.
5. Shut Engine Off.
6. Close LPG Tank Valves.

SERVICE INSTRUCTIONS

1. Conduct a general inspection of your machine at least once a week. Replace all worn or damaged parts, make any necessary adjustments and tighten all loose nuts or screws.
2. Follow recommended maintenance procedures on maintenance chart.

MAINTENANCE INSTRUCTIONS

ENGINE:

Check oil every 8 hours of operation. Change after the first 5 hours of operation and change every 25 hours thereafter.

See engine owners manual for additional operating and maintenance instructions.

HYDRAULIC SYSTEM:

Check hydraulic fluid every 8 hours. Change hydraulic filter after first 10 hours of operating and every 250 hours thereafter. Change hydraulic fluid every 500 hours of operation.

WHEEL BEARINGS:

Repack wheel bearings every 24,000 miles or every two years, using a good grade of bearing grease.

TONGUE JACK:

Lubricate tongue jack, using a good grade of bearing grease.

INSTRUCTION FOR ORDERING PARTS

Parts may be ordered from your local CRAFCO distributor or directly from CRAFCO, Inc. if a distributor is not available in your area. When ordering parts, give the following information:

1. Part Number
2. Machine Model
3. Serial Number from Name Plate

Write or telephone:

CRAFCO, INC.
6975 WEST CRAFCO WAY
CHANDLER, AZ 85226
(602) 276-0406
Toll Free: 1-800-528-8242

PARTS LIST

ITEM NO.	DESCRIPTION	QTY.	PART NO.
1.	Battery Box Cover	1	24002
2.	Tail Light - Right Side	1	24022
3.	Tail Light - Left Side	1	24023
4.	1/4 Flat Washer	4	28670
5.	1/4 Lock Washer	4	28645
6.	1/4 - 20 Hex Nut	4	28536
7.	LPG Storage Tank	3	25118
8.	Knob - 1/2 - 13 Black	3	26032
9.	Toggle Switch	1	32513
10.	Battery - 12v	1	32547
11.	isomount	4	41636
12.	Battery Selector Switch	1	42398
13.	Hand Held Remote Control	1	42399
14.	Tongue Jack Side Mount	1	23097
15.	Fender	2	41575
16.	5/16 - 18 x 1 Bolt	8	28716
17.	5/16 Flat Washer	8	28681
18.	5/16 18 Locknut	8	28525
19.	Tire & Wheel Assembly	2	41743
20.	Gas Manifold - Short	1	42446
21.	Front Panel	1	42429
22.	Rear Panel	1	42430
23.	Hub Rework	1	42461
24.	Sheave	2	42462
25.	Steerin Arm	1	42464
26.	Switch Holder	1	42470
27.	Restraining Pin	1	42480
28.	Heater Propane	8	42497
29.	V Bolt	16	42493
30.	Winch - 12 V.D.C.	2	42499
31.	Hydraulic Motor	1	41102
32.	Pivot	1	42454
33.	Bushing	2	42458
34.	Snap Ring	1	42459
35.	Washer	1	42469
36.	Bracket Caster	1	42473
37.	Washer	1	42479
38.	Breather - Filler Cap	1	42382
39.	Return Filter	1	42383
40.	Hydraulic Tank Assembly	1	42385
41.	Hydraulic Pump	1	41094
42.	Stub Axle	2	42489
43.	Propane Engine	1	41386
44.	5/8 Jaw Coupling	1	41167
45.	1" Jaw Coupling	1	41168
46.	Coupling Spider	1	41169

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571 each if Dist.

400 each no Dist

ITEM NO.	DESCRIPTION	QTY.	PART NO.
47.	Chain Guard	1	42381
48.	Flow Divider - Priority	1	41573
49.	Hydraulic Control Valve	1	42397
50.	3" Wheel	8	40242
51.	Clevis Pin	2	29482
PARTS NOT ILLUSTRATED			
	2" Ball Hitch	1	20017
	3/8 Chain Shackle with Loose Pin	2	20132
	3/8 Chain Shackle with Screw Pin	2	20133
	LPG Pressure Gage	2	25060
	License Plate Holder	1	26099
	Battery Cable	2	37038
	Chain - 1/4 x 48" Long	2	40122
	Battery Cable	1	41624
	Gas Manifold - Long	2	42443
	Gas Pipe	1	42448

HYDRAULIC PIPING SEQUENCE INFRARED HEATER

1. HYDRAULIC RESERVOIR ASSEMBLY TO FLOW DIVIDER VALVE (PRESS. PORT)		
1	28004	3/4 Close Nipple

2. FLOW DIVIDER VALVE (REG. PORT) TO HYDRAULIC CONTROL VALVE ("P" PORT)		
1	28348	3/4 x 1/2 Reducing Bushing
1	29841	Straight Adaptor
1	40187	Hydraulic Hose Assembly 3/8 x 18" Long
1	40311	Straight Adaptor "O" Ring

3. HYDRAULIC CONTROL VALVE ("T" PORT) TO HYDRAULIC RETURN LINE FILTER		
1	29848	Elbow Adaptor "O" Ring
1	40012	Hydraulic Hose Assembly 3/8 x 24" Long
1	29834	Straight Adaptor
1	28252	3/8 Tee
1	28002	3/8 Close Nipple

4. FLOW DIVIDER VALVE (BY-PASS PORT) TO TEE IN LINE 3.		
1	28348	3/4 x 1/2 Reducing Bushing
1	29876	Elbow Adaptor
1	40187	Hydraulic Hose Assembly 3/8 x 18" Long
1	29872	Elbow Adaptor

5. HYDRAULIC CONTROL VALVE ("B" PORT) TO HYDRAULIC WHEEL MOTOR (TOP PORT)		
1	40311	Straight Adaptor "O" Ring
1	29570	Hydraulic Hose Assembly 3/8 x 34" Long
1	29828	Elbow Adaptor "O" Ring

6. HYDRAULIC CONTROL VALVE ("A" PORT) TO HYDRAULIC WHEEL MOTOR (BOTTOM PORT)		
1	40311	Straight Adaptor "O" Ring
1	29570	Hydraulic Hose Assembly 3/8 x 34" Long
1	29828	Elbow Adaptor "O" Ring

LPG PIPING SEQUENCE INFRARED HEATER

1. L.P.G. TANK TO GAS MINIFOLD		
1	25123	Tank Spud
1	29195	1/4 Ball Valve
1	29857	45" Elbow Adaptor
1	25141	Propane Hose Assembly 44" Long
1	29840	Straight Adaptor

2. CENTER L.P.G. TANK TO MANIFOLD		
1	25123	Tank Spud
1	29195	1/4 Ball Valve
1	29857	45" Elbow Adaptor
1	25141	Propane Hose Assembly 44" Long
1	29840	Straight Adaptor

3. R.H. L.P.G. TANK TO GAS MANIFOLD		
1	25123	Tank Spud
1	29195	1/4 Ball Valve
1	29857	45" Elbow Adaptor
1	25141	Propane Hose Assembly 44" Long
1	29840	Straight Adaptor

4. GAS MANIFOLD TO HAND TORCH		
1	28342	3/8 x 1/4 Reducing Bushing
1	29980	1/4 Straight Tee
1	29836	Straight Adaptor
1	25130	1/4 Hose Assembly 120" Long
1	25016	Hand Torch Assembly - consisting of: 29199 1/4 Shut Off Valve 29850 Female Adaptor 25015 Hand Torch

5. TEE IN LINE 4 TO GOVERNOR		
1	29839	Straight Adaptor
1	25132	Propane Hose Assembly 34" Long
1	29871	Elbow Adaptor
1	25087	Regulator
1	28001	1/4 Close Nipple
1	28251	1/4 Tee
1	28012	1/4 x 1 1/2 Pipe Nipple
1	25086	Zero Governor

6. GOVERNOR TO PROPANE ENGINE		
1	29875	Elbow Adaptor
1	29589	LPG Fuel Line 3/8 x 75" Long
2	26079	Gear Clamp
1	29875	Elbow Adaptor

7. GAS MANIFOLD TO FRONT GAS MANIFOLD		
1	28001	1/4 Close Nipple
1	25066	Pressure Regulator
1	28001	1/4 Close Nipple
1	29195	1/4 Ball Valve
1	29839	Straight Adaptor
1	25142	LPG Hose Assembly 31" Long
1	29840	Straight Adaptor

8. FRONT GAS MANIFOLD		
1	28282	3/8 Pipe Plug

9. GAS MANIFOLD TO GAS PIPE ON FRAME		
1	28001	1/4 Close Nipple
1	25066	Pressure Regulator
1	28001	1/4 Close Nipple
1	29195	1/4 Ball Valve
1	29839	Straight Adaptor
1	25141	LPG Hose Assembly 44" Long
1	42448	Gas Pipe (On Frame)

10. GAS PIPE ON FRAME TO REAR GAS MANIFOLD		
1	25127	LPG Hose Assembly 12" Long
1	29859	Elbow Adaptor

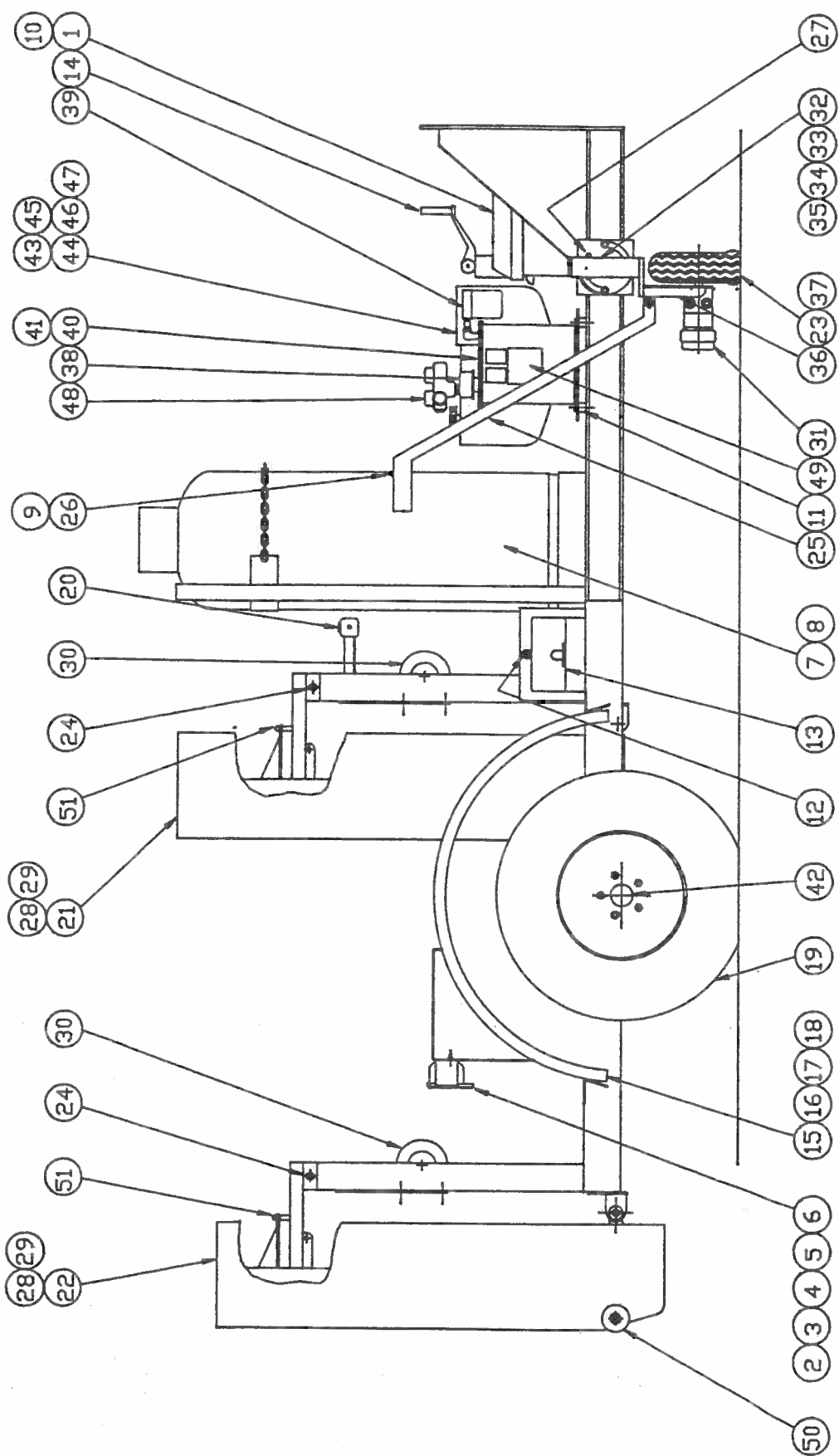
11. REAR GAS MANIFOLD		
1	28282	3/8 Pipe Plug

12. 13. 14. 15. FRONT GAS MANIFOLD TO INFRARED BURNER		
1	28002	3/8 Close Nipple
1	29202	3/8 Ball Valve
1	29859	Elbow Adaptor
1	25128	LPG Hose Assembly 23" Long
1	29840	Straight Adaptor

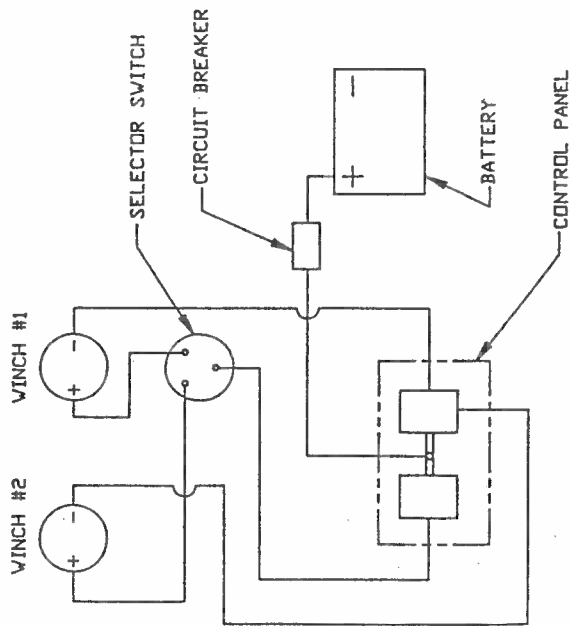
16. 17. 18. 19. REAR GAS MANIFOLD TO INFRARED BURNER		
1	28002	3/8 Close Nipple
1	29202	3/8 Ball Valve
1	29859	Elbow Adaptor
1	25128	LPG Hose Assembly 23" Long
1	29840	Straight Adaptor

20. TEE IN LINE 5.		
1	28281	1/4 Pipe Plug

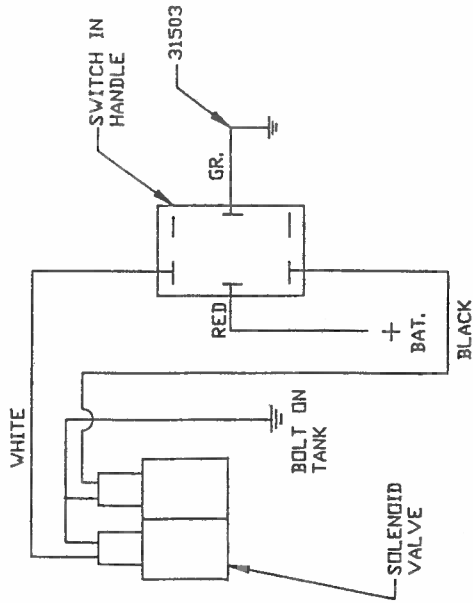
21. 22. REGULATOR TO PRESS. GAGE		
1	28204	1/4 x 90° Elbow
1	25060	Pressure Gage



REVISIONS		DATE	REV	BY	DESCRIPTION



POWER WINCH WIRING DIAGRAM



POWER WHEEL WIRING DIAGRAM

SIGNATURES	DATES
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APPROVED:	

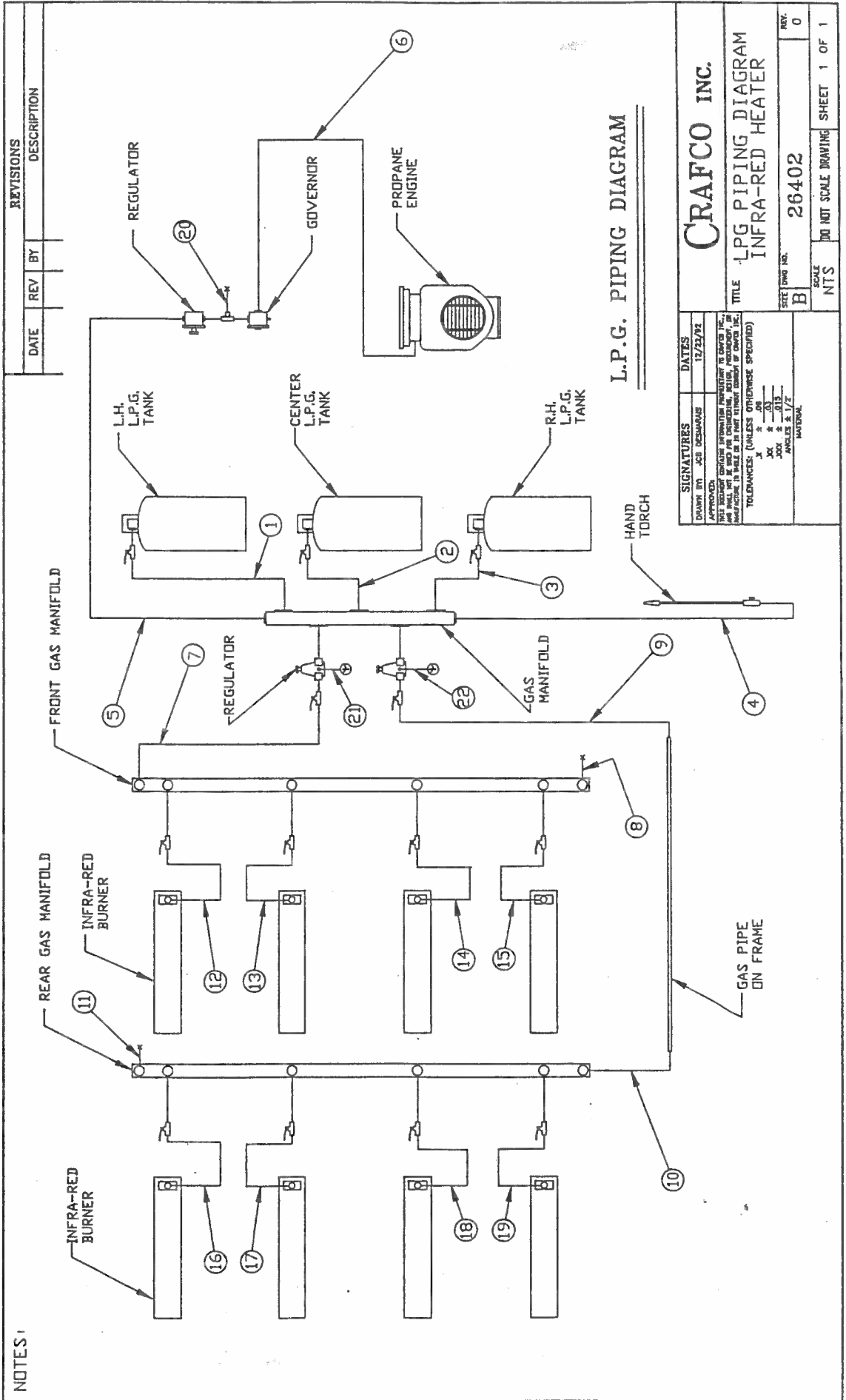
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TOLERANCES: (UNLESS OTHERWISE SPECIFIED)
 .XX ± .03
 .XXX ± .015
 ANGLES ± 1/2°
 MATERIAL

SIZE: DWG NO. 26406
 B
 REV. 0

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CRAWCO INC.
 WIRING DIAGRAMS
 INFRA RED HEATER



NOTES:

L.P.G. PIPING DIAGRAM

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CRAFICO INC.

LPG PIPING DIAGRAM
INFRA-RED HEATER

**Pioneering Leadership and
Innovation in Quality
Pavement Maintenance
Materials.**

CRAFCO INC.

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