

# ThermoLazer™ Pavement Marking System

313880D  
EN

- For professional application of thermoplastic traffic marking compound materials (reflective beads applied simultaneously with screeding) -
- For outdoor use only (not to be operated in rain or damp conditions) -

**Model No. 258699 North America - Includes 257500 and 4 in. (10 cm) SmartDie™ Screed Box**  
**Model No. 257500 International (SmartDie™ Screed Box not included)**

Fuel: LP Gas (Propane Vapor)

Burner capacities (max total): 138,000 BTU/hr. (38,000 BTU/hr. without torch)

Material capacity (max): 300 lb



### IMPORTANT SAFETY INSTRUCTIONS

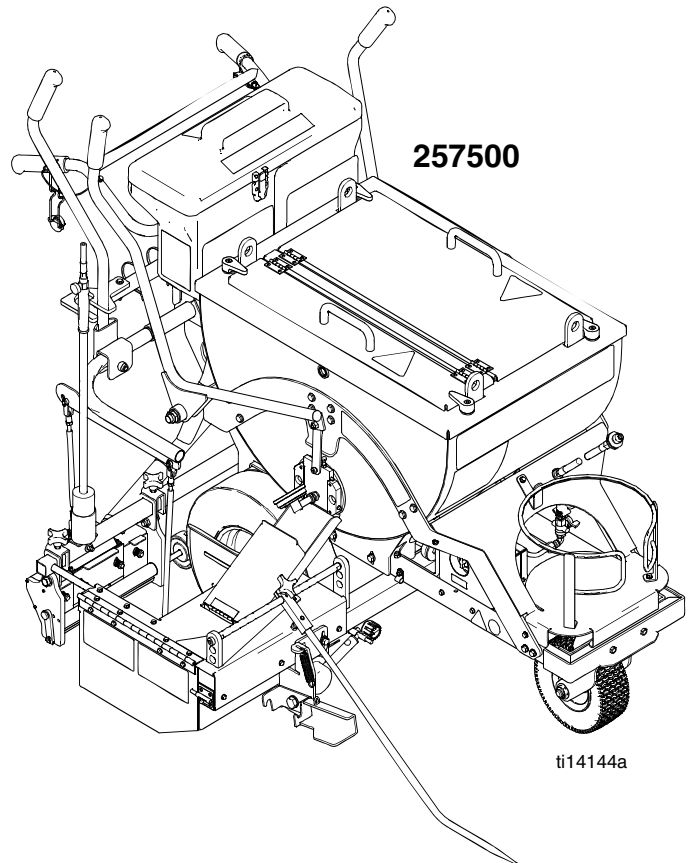
Read all warnings and instructions in this manual. Save these instructions.

#### Related Manuals

**Operation** 313787  
**Repair** 313879

#### For use with the following SmartDie™ Screed Box:

Part	Description
256736	4 in. (10 cm) Screed Box
257469	5 in. (12 cm) Screed Box
256737	6 in. (15 cm) Screed Box
257470	7 in. (18 cm) Screed Box
256738	8 in. (20 cm) Screed Box
257471	9 in. (22.5 cm) Screed Box
257472	10 in. (26 cm) Screed Box
256739	12 in. (30 cm) Screed Box
256799	Double Line 4-4-4 in. (10-10-10 cm) Screed Box
24B729	Double Line 4-3-4 in. (10-8-10 cm) Screed Box

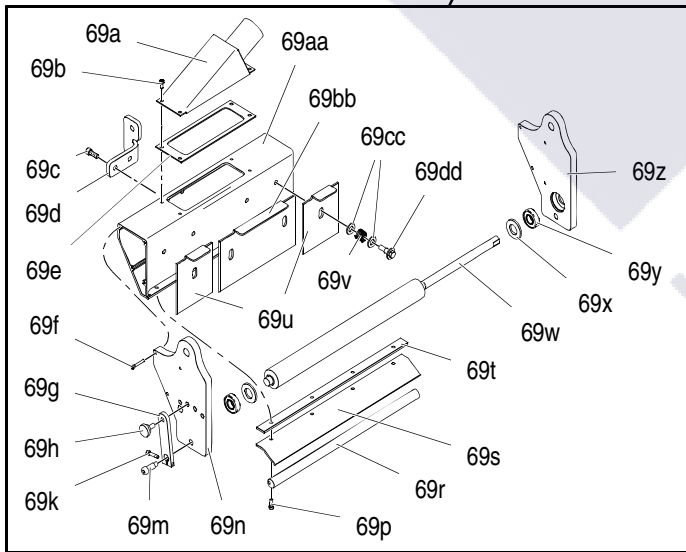
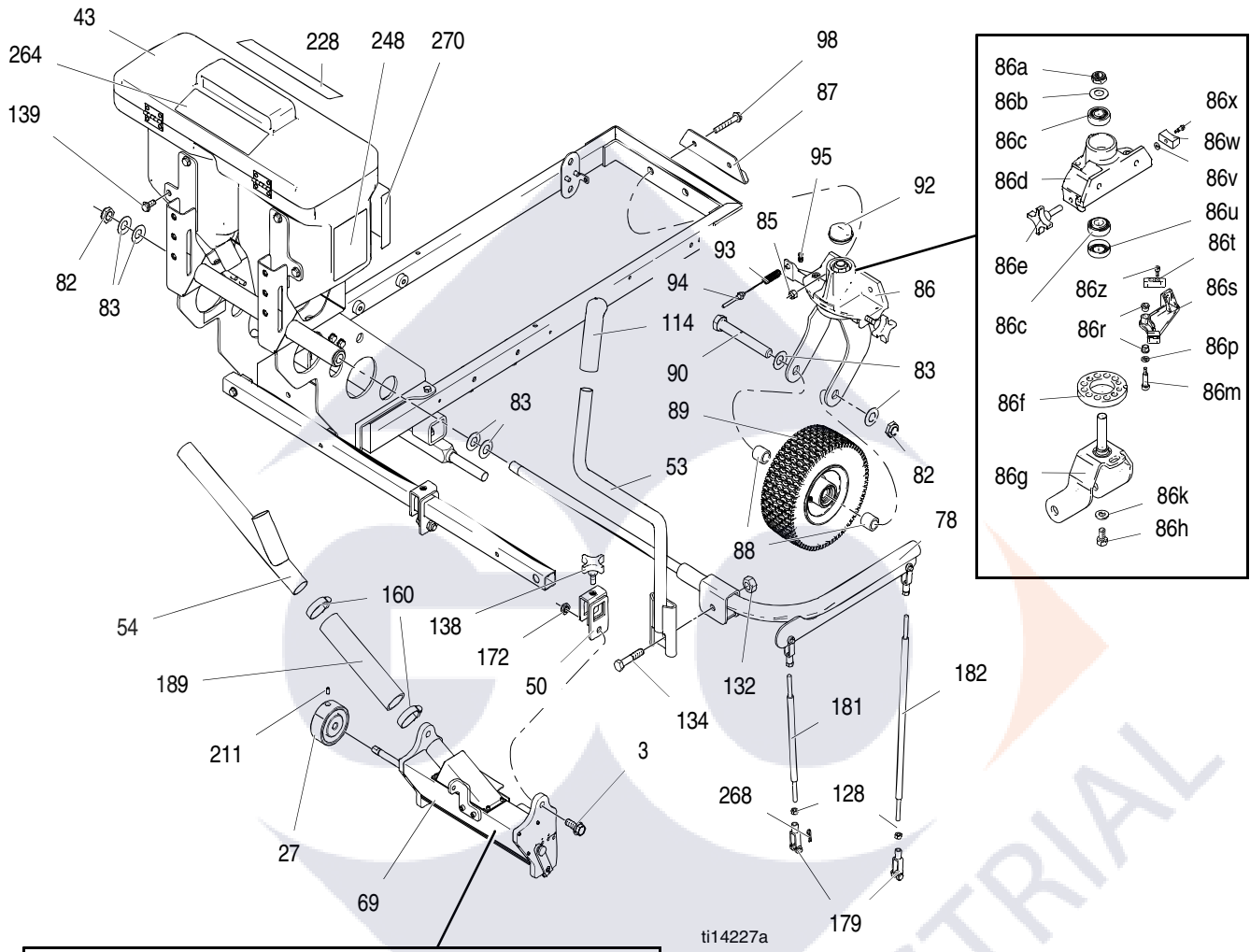


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Conforms to  
ANSI Z21.89 - 2007  
CSA 1.18 - 2007

# Parts



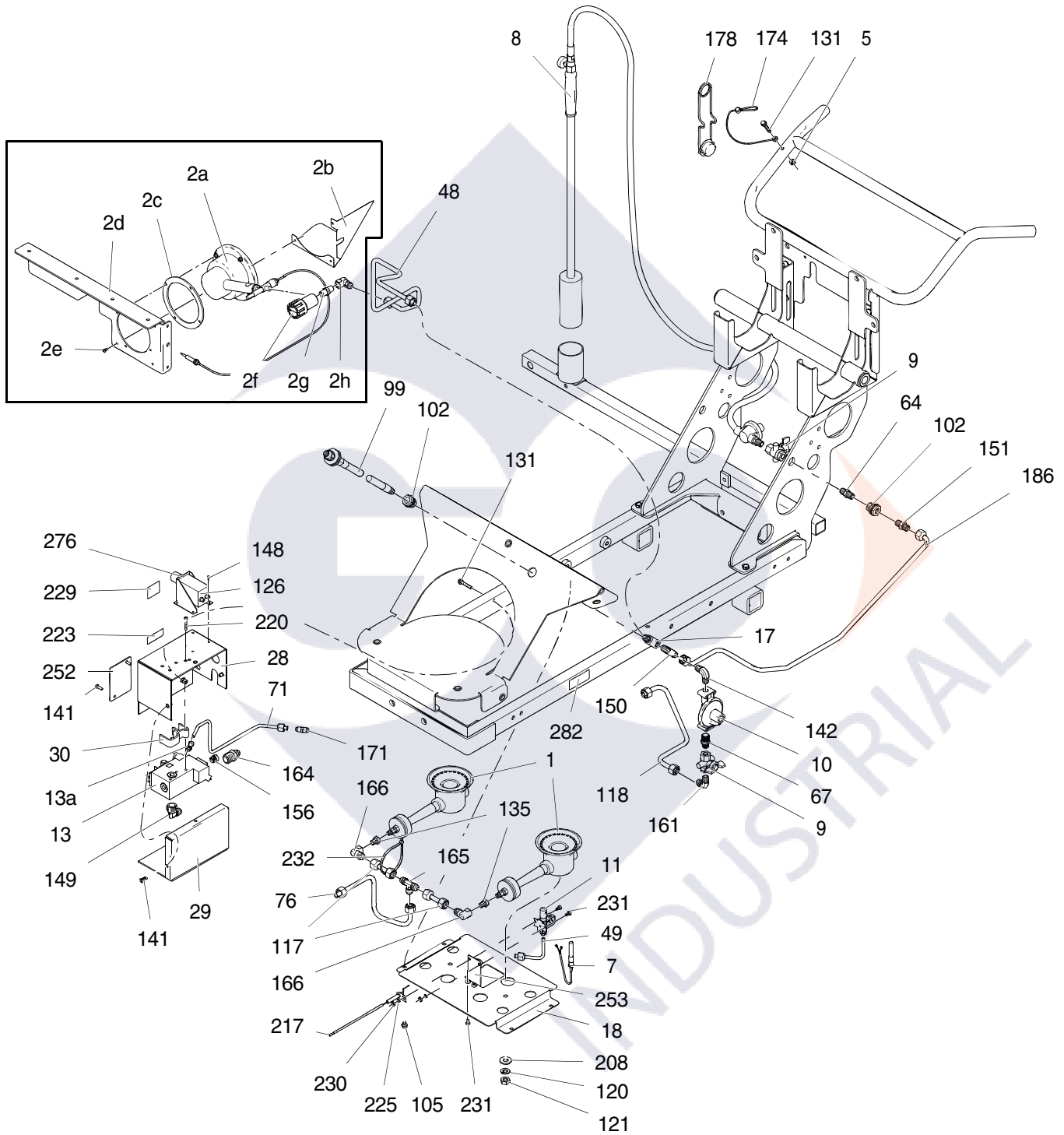
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## Parts List

Ref.	Part	Description	Qty.	Ref.	Part	Description	Qty.
3	111195	SCREW, cap, flnghd	2	86g	240942	SHAFT, fork	1
27	15X765	WHEEL, drive, bead	1	86h	114681	SCREW, cap, hex hd	1
43	24E483	KIT, hopper, bead, Thermolazer (includes 228, 248, 264, 270)	1	86k	113962	WASHER, hardened, sae	1
50	257399	CLAMP, beadbox	2	86m	120476	BOLT, shoulder, 5/16	1
53	257455	HANDLE, lift, die/bead dispenser	1	86p	15J603	SPACER, round, .625 o.d.	1
54	257617	CONNECTOR, bead box hose	1	86r	114548	BEARING, bronze	2
69	257400	DISPENSER, 12 in. bead box	1	86s	193528	ARM, detent	1
69a	257378	MANIFOLD, assembly	1	86t	193662	STOP, wedge	1
69b	112788	SCREW, cap, socket hd	4	86u	113484	SEAL, grease	1
69c	121112	SCREW, cap, socket head	2	86v	112776	WASHER, plain	1
69d	15X376	BRACKET, beadbox, linkage	1	86w	193661	JAW	1
69e	16A243	GASKET, foam	1	86x	108483	SCREW, shoulder, sch	1
69f	110631	SCREW, socket, hd	8	86z	110754	SCREW, cap, sch	2
69g	15X282	HANDLE, adjuster	1	87	240991	BRACKET, caster, front	1
69h	123261	SCREW, thumb	1	88	193658	SPACER, seal	2
69k	295709	SCREW, cap, sockethead	1	89	114549	WHEEL, pneumatic	1
69m	123481	SCREW, shoulder, screw, 1/4-20	2	90	113471	SCREW, cap, hex hd	1
69n	15X277	BRACKET, left	1	92	114648	CAP, dust	3
69p	112310	SCREW, cap, sch	4	93	114682	SPRING, compression	1
69r	15X281	ADJUSTER	1	94	241445	CABLE	1
69s	15X274	GATE, poly	1	95	114802	STOP, wire	1
69t	15X275	GATE, bar	1	98	123443	SCREW, cap, flng hd	2
69u	15X273	PLATE, slide	2	114	114659	GRIP, handle	5
69v	114708	SPRING, compression	4	128	100187	NUT	4
69w	24C672	KIT, shaft, knurled, assembly	1	132	101580	NUT, lock	1
69x	114797	GASKET	2	134	114766	BOLT, cap hex head	1
69y	123304	BEARING, double sealed	2	138	111145	KNOB, pronged	3
69z	15X276	BRACKET, right	1	139	111192	SCREW, cap flange hd	26
69aa	15X272	HOUSING, dispenser	1	160	116789	CLAMP, hose	6
69bb	16A252	PLATE, slide, middle	1	172	119547	NUT, hex, lock, nylon, thin	2
69cc	104034	WASHER, plain	8	179	15V415	CLEVIS	4
69dd	119872	SCREW, shoulder	4	181	16A041	SHAFT, threaded	1
78	15W873	ARM, die/bead dispenser	1	182	16A048	SHAFT, threaded	1
82	112405	NUT, lock	6	189	16A100	HOSE, bead	3
83	112825	SPRING, belleville	10	211	100664	SCREW, set, sch	1
85	101566	NUT, lock	5	228▲	16A276	LABEL, ISO symbols warn instr	1
86	287881	CASTER, linelazer	1	248	196845	LABEL, ident, top, roof rigs	2
86a	112405	NUT, lock	1	264▲	15Y966	LABEL, fire and explosion warning	1
86b	112825	SPRING, belleville	2	268	120592	PIN, cotter, hairpin	3
86c	113485	BEARING, cup/cone	2	270	16A577	SHIELD, heat, bead hopper	2
86d	15G952	CASTER, (machine)	1				
86e	181818	KNOB, pronged	1				
86f	198606	DISK, adjuster	1				

▲ Replacement warning labels are available at no cost.

# Parts

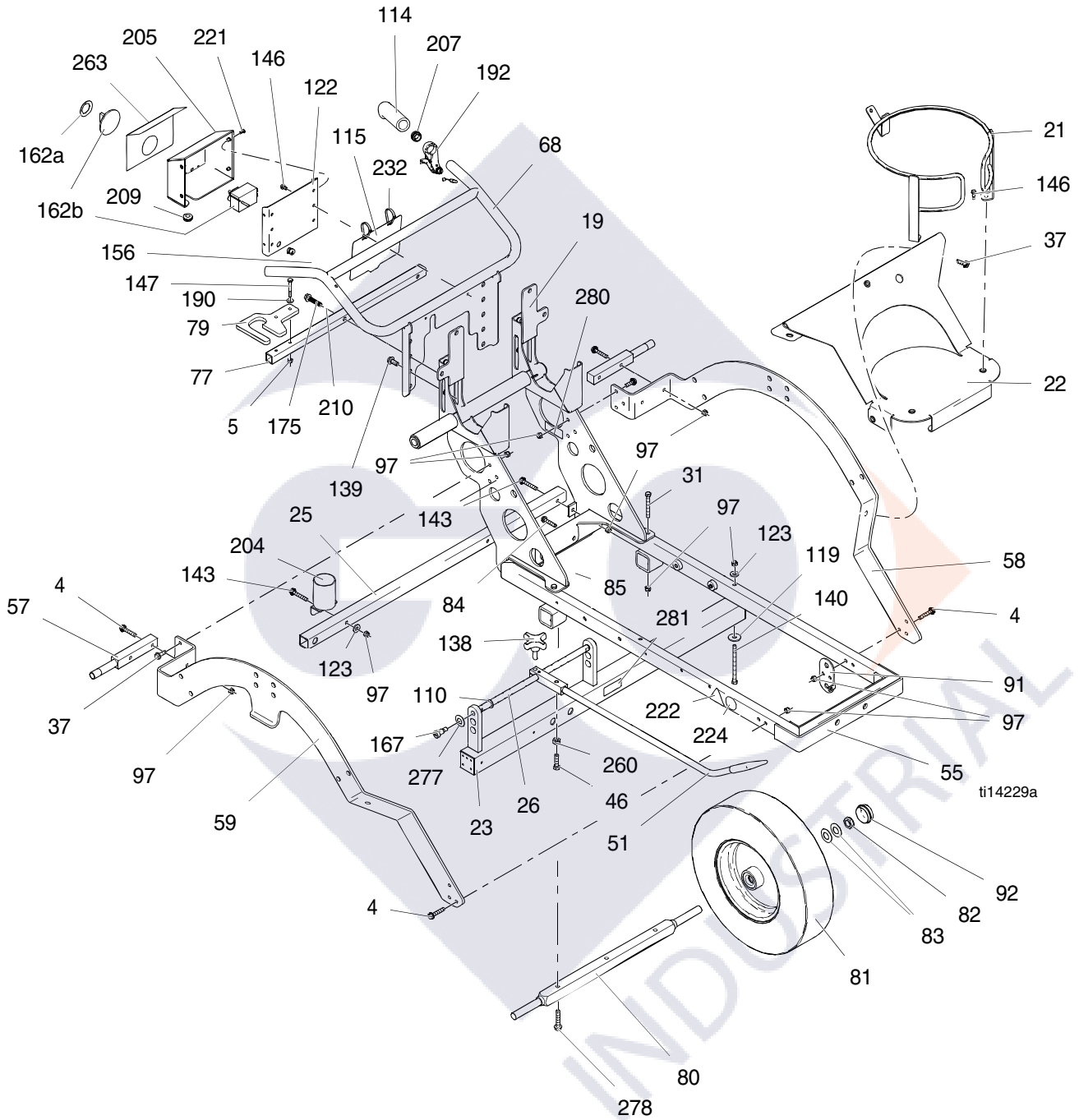


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## Parts List

Ref.	Part	Description	Qty.	Ref.	Part	Description	Qty.
1	24C394	KIT, ring, burner, 4.25 in. D	2	118	16A058	TUBE, formed, gas, Thermolazer	1
2	24C395	KIT, heater, replacement (includes 2a - 2h)	1	120	100016	WASHER, lock	2
2a	16A912	HEATER, IR, burner, complete	1	121	100015	NUT, hex mscr	3
2b	16A526	DEFLECTOR, screed box, heat	1	126	123085	CONTROL, igniter, pulse	1
2c	15W394	INSULATOR, ceramic fiber	1	131	114104	SCREW, mach, hex wash hd	3
2d	15W711	PLATE, chamber, die	1	135	100030	BUSHING	2
2e	107257	SCREW, thd forming	6	141	110345	SCREW, mach, pnh	5
2f	24C652	REGULATOR	1	142	110249	ADAPTER, male elbow 90 degr	1
2g	156971	FITTING, nipple, short	1	148	122667	SCREW, drill, hex washer head	3
2h	123159	FITTING, flared, 1/4 pipe, 90 elbow	1	149	118458	FITTING, elbow, male	1
5	102040	NUT, lock, hex	3	150	118472	FITTING, tee	1
7	122944	FITTING, Thermopile	1	151	118484	FITTING, connector	1
8	122945	TOOL, torch	1	156	119545	BUSHING, strain, relief	2
9	122946	VALVE, shut off	2	161	123155	FITTING, flared, 1/4 pipe, 90 elbow	1
10	122947	REGULATOR	1	164	123157	FITTING, flared, 1/2 pipe, adapter	1
11	24C396	KIT, valve, burner, pilot	1	165	123158	FITTING, flared, 3/8 tube, tee	1
13	16A911	VALVE, gas, LP conversion (includes 13a)	1	166	123159	FITTING, flared, 1/4 pipe, 90 elbow	3
13a	24C113	KIT, fitting, connector	1	171	123160	FITTING, flared, 1/4 tube, coupling	1
17	106228	FITTING, tee, street	1	174	121458	TIE, lanyard	1
18	15W441	PLATE, mount, burner	1	178	123186	TOOL, spark lighter	1
28	15X982	ENCLOSURE, valve	1	186	16A074	TUBE, formed, gas, Thermolazer	1
29	15X987	COVER, enclosure, valve box	1	208	110755	WASHER, plain	2
30	16A708	BLOCK, spacer, gas valve	1	217	125140	ELECTRODE	1
48	16A057	TUBE, formed, gas, Thermolazer	1	220	15F979	SCREW, pan head, phillips	3
49	16A062	TUBE, formed, gas, Thermolazer	1	223	15Y967	LABEL, kettle gas safety valve	1
64	156971	FITTING, nipple, short	1	225	100020	WASHER, lock	2
67	157350	ADAPTER	1	229	16A277	LABEL, kettle pilot burner igniter	1
71	16A059	TUBE, formed, gas, Thermolazer	1	230	100179	NUT, hex mscr	2
76	16A060	TUBE, formed, gas, Thermolazer	1	231	110637	SCREW mach, panhead	4
99	123086	HOSE, propane	1	232	114958	STRAP, tie	5
102	104641	FITTING, bulkhead	2	252	16C333	COVER, valve enclosure	1
105	112798	SCREW, thread forming, hex hd	6	253	16C332	BRACKET, mgt pilot burner	1
115	16A984	HANG TAG	1	276	121413	BATTERY, AA 1.5V (4 peak)	1
117	16A061	TUBE, formed, gas, Thermolazer	2				

# Parts



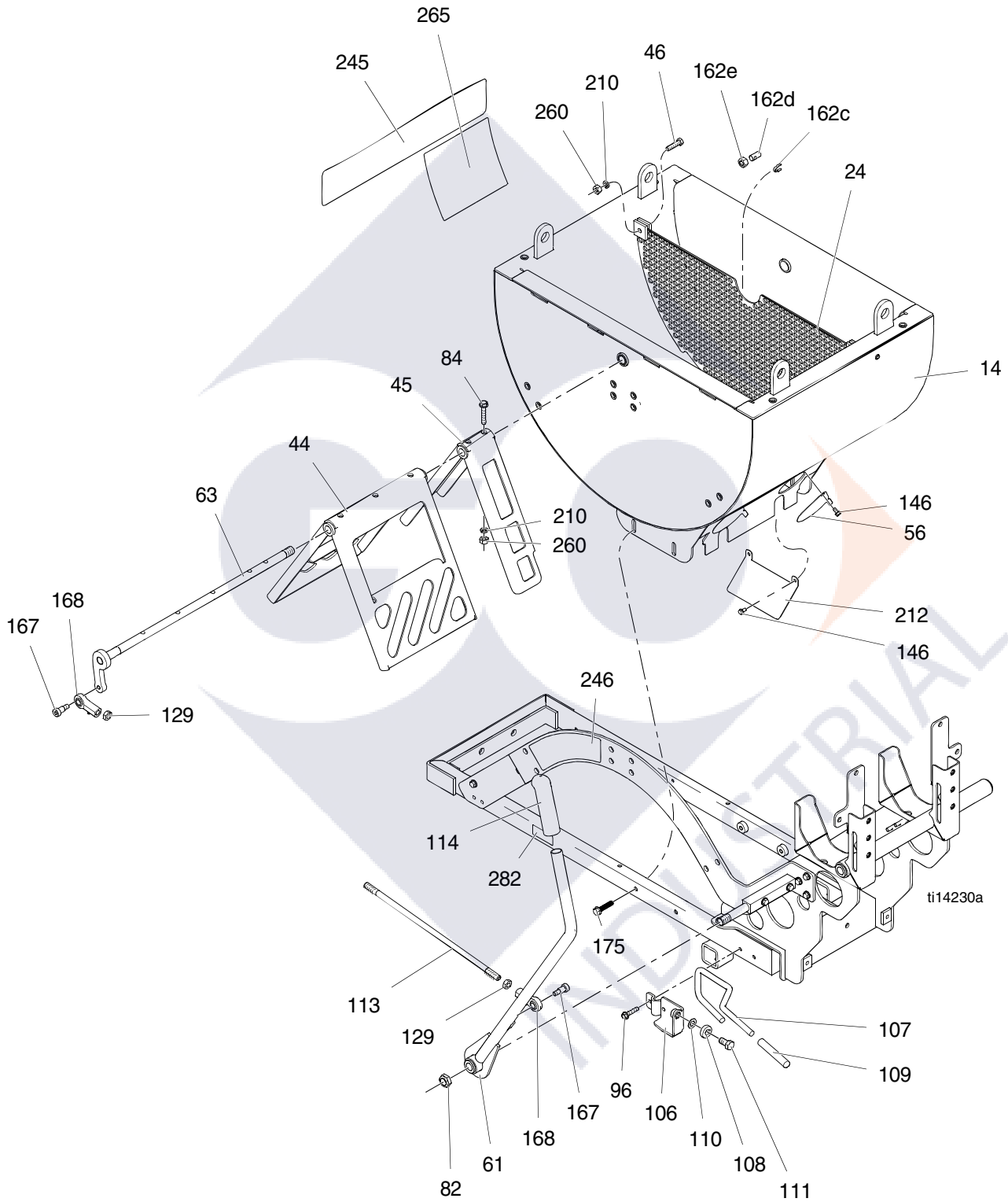


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Ref.	Part	Description	Qty.	Ref.	Part	Description	Qty.
4	112960	SCREW, cap, flng hd	8	123	100023	WASHER, flat	5
5	102040	NUT, lock, hex	3	138	111145	KNOB, pronged	3
19	15W518	BRACKET, handle, linelazer	1	139	111192	SCREW, cap flng hd	26
21	15W724	HOLDER, tank, propane (weldment)	1	140	110384	SCREW, cap, hex hd	2
22	15W732	BRACKET, support, tank, propane	1	143	114653	SCREW, cap, flange head	3
23	15W735	ARM, screed shroud	1	146	107257	SCREW, thd forming	39
25	15X377	TUBE, support, bead box	1	147	110982	SCREW, cap, hexhd	2
26	16A481	BAR, mount, indicator, line	1	156	119545	BUSHING, strain, relief	2
31	110385	SCREW, cap, hexhd (5/16 x 3)	2	162a	16A873	LABEL, temperature control F & C	1
37	112586	SCREW, cap, hex hd	13	162b	24C397	KIT, control, temperature (includes 162a, 162c, 162d, 162e)	1
46	102637	SCREW, cap	3	167	123199	SCREW, shoulder, socket head	4
51	24C232	INDICATOR, line, Thermolazer	1	175	117779	SCREW, hex head, flanged	6
55	15W425	FRAME, Thermolazer	1	190	170772	WASHER, plain	2
57	15W443	SHAFT, pivot, agitator	2	192	194310	LEVER, actuator	1
58	15W444	PLATE, mount, side 1	1	204	24B918	BRACKET, mount, torch	1
59	15W445	PLATE, mount, side 2	1	205	15X993	BOX, control	1
68	15W992	BAR, handle	1	207	120151	RETAINER, caplug	3
77	15X286	TUBE, lock	1	209	801012	GROMMET	1
79	15X287	BRACKET, lock	1	210	100133	WASHER, lock	9
80	193405	AXLE	1	221	116610	SCREW, mach, phil, pan, #10	4
81	111020	WHEEL, pneumatic	2	222▲	16A274	LABEL, ISO explosion	1
82	112405	NUT, lock	6	224▲	15Y963	LABEL, ISO read instr	1
83	112825	SPRING, belleville	10	260	100131	NUT, full hex	8
84	111194	SCREW, cap flange hd	7	263	15Y965	LABEL, kettle temp control	1
85	101566	NUT, lock	5	277	119563	WASHER, belleville	1
91	15F910	BRACKET, cable	1	278	114982	SCREW	2
92	114648	CAP, dust	3	280▲	16A836	LABEL, caution replace prt R700C	1
97	111040	NUT, lock, insert, nylock, 5/16	25	281▲	16A837	LABEL, caution replace prt 93412	1
110	195134	SPACER, ball, guide	2	316	16C026	CONDUIT, corrugated	1
114	114659	GRIP, handle	5				
119	108851	WASHER	6				
122	15X995	COVER, control box	1				

▲ Replacement warning labels are available at no cost.

# Parts



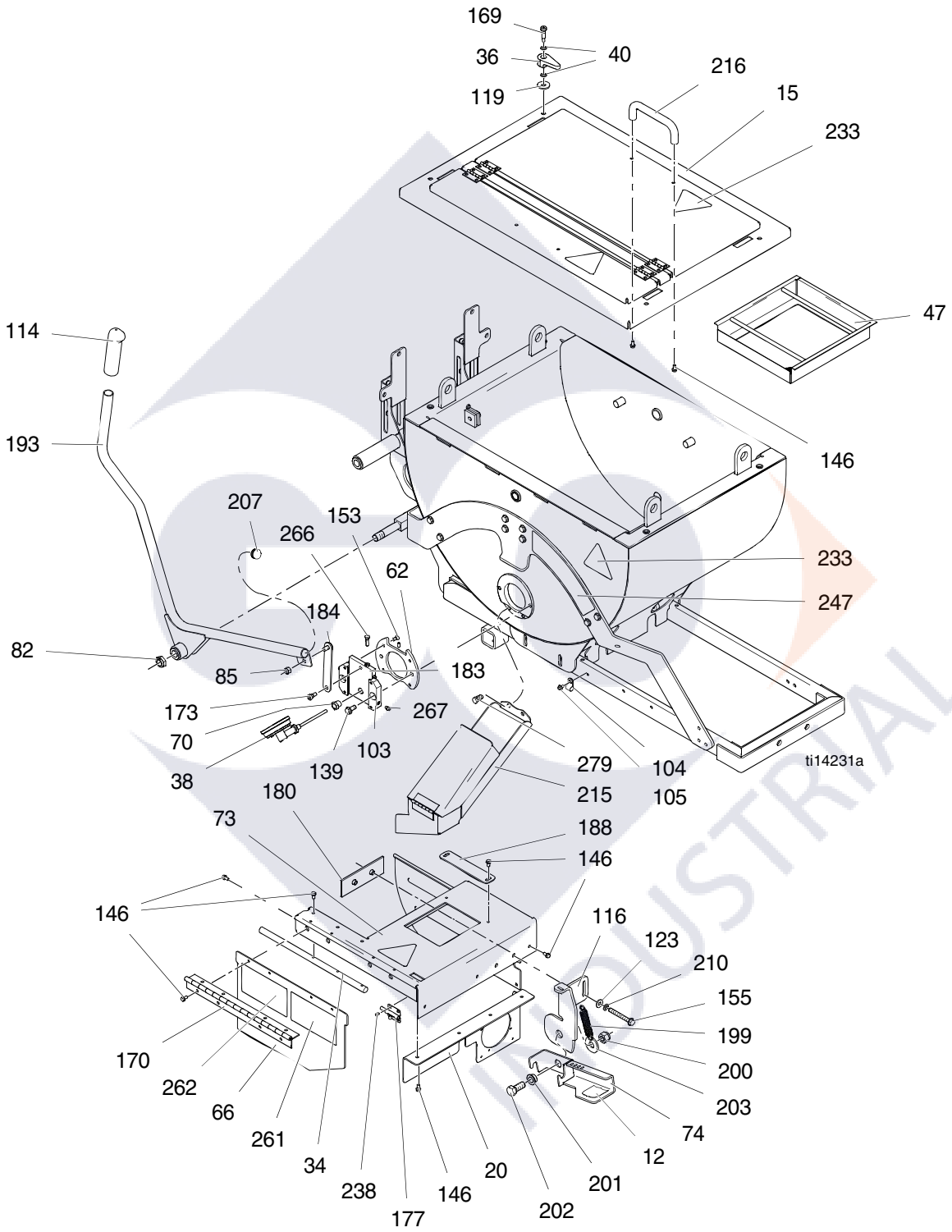


## Parts List

Ref.	Part	Description	Qty.	Ref.	Part	Description	Qty.
14	16A404	RESERVIOR, kettle	1	129	100111	NUT	2
24	15X215	SCREEN, kettle	1	146	107257	SCREW, thd forming	39
44	24C633	AGITATOR, large	1	162c	16C018	HOLDER, temp probe	5
45	24C634	AGITATOR, small	1	162d	15Y792	HOLDER, temp probe	1
46	102637	SCREW, cap	3	162e	100321	NUT	1
56	15W440	CHAMBER, heat, site door	4	167	123199	SCREW, shoulder, socket head	4
61	15W447	AGITATOR, arm	1	168	123200	ROD, ball joint, end	2
63	258686	SHAFT, agitator	1	175	117779	SCREW, hex head, flanged	6
82	112405	NUT, lock	6	210	100133	WASHER, lock	9
84	111194	SCREW, cap flng hd	7	212	15W733	DEFLECTOR, heat	2
96	110837	SCREW, flange, hex	2	245	16A315	LABEL, brand, Thermolazer front	1
106	198891	BRACKET	1	246	16A316	LABEL, brand, Thermolazer left	1
107	198930	ROD, brake	1	260	100131	NUT, full hex	8
108	198931	BEARING	1	265▲	15Y964	LABEL, kettle lighting instr	1
109	114808	CAP, vinyl	1	282▲	16A838	LABEL, caution replace prt 302V	1
110	195134	SPACER, ball, guide	2				
111	113961	SCREW, cap, hex hd	1				
113	15Y673	ROD, pivot, agitator	1				
114	114659	GRIP, handle	5				

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# Parts



## Parts List

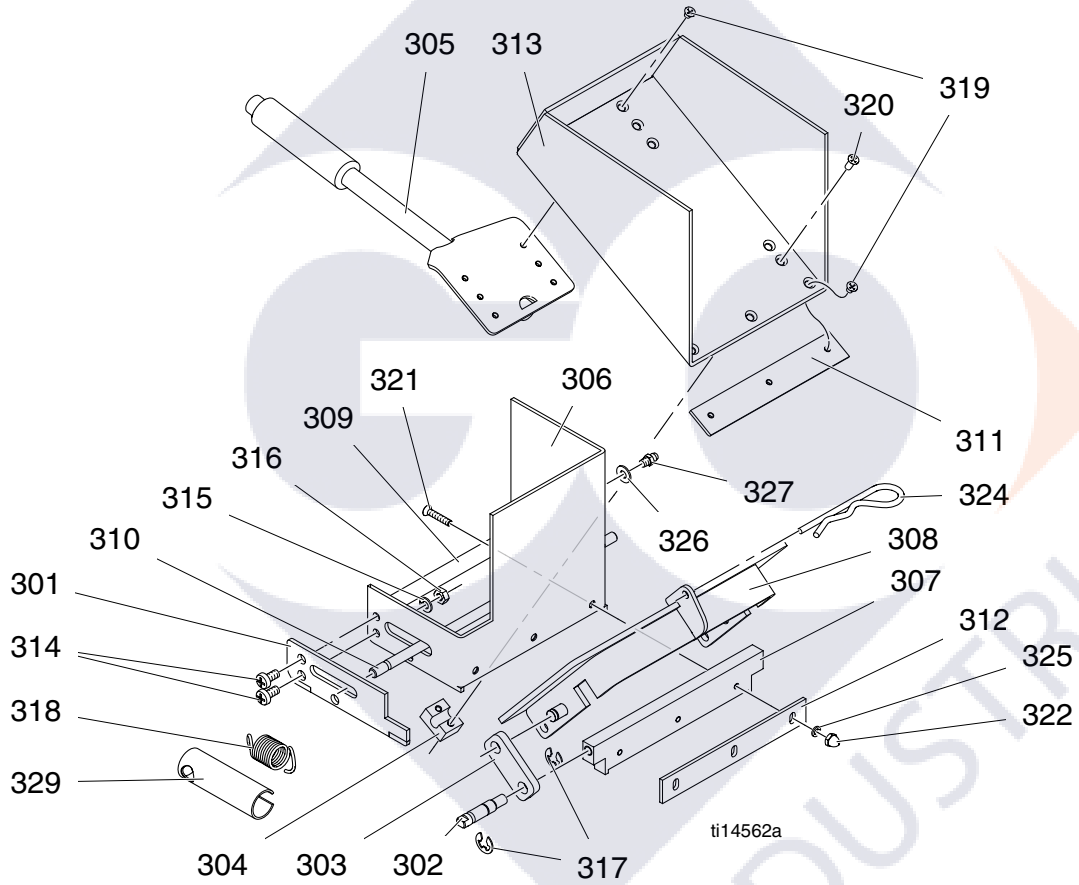
Ref.	Part	Description	Qty.	Ref.	Part	Description	Qty.
12	16C153	LABEL, brand	1	170	123154	HINGE, access door	1
15	15W407	COVER, kettle	1	173	121256	SCREW, shoulder, skt hd	1
20	15W711	PLATE, chamber, die	1	177	123099	LOCK, slide barrel	1
34	15Y339	ROD, support, die	1	180	15Y949	PLATE, back support	1
36	15Y677	LATCH, cover	4	183	24C105	GATE, valve, finished	1
38	15Y679	THERMOMETER, temp gauge	1	184	16A068	LINK, gate valve	1
40	113680	WASHER, wave	8	188	16A084	BRACKET, funnel cover	1
47	257368	SCREEN, inlet	1	193	24B811	HANDLE, gate valve	1
62	16A065	FLANGE, mount, gate valve	1	199	123206	SPRING, extension	1
66	15W723	DOOR, chamber, die	1	200	101712	NUT, lock	1
70	168160	BUSHING, pipe	1	201	123209	BEARING, flanged	1
73	16A525	SHIELD, screed, heat	1	202	123208	SCREW, cap, hex head	1
74	15W614	HANDLE, actuator	1	203	115028	WASHER, flat	1
82	112405	NUT, lock	6	207	120151	REATINER, cap lug	3
85	101566	NUT, lock	5	210	100133	WASHER, lock	9
103	16A066	PLATE, guide, gate valve	2	215	24B925	FUNNEL, complete	1
104	108868	CLAMP, wire	2	216	15W412	HANDLE, cover	2
105	112798	SCREW, thread forming, hex HD	6	233▲	16A275	LABEL, ISO hot surface	5
114	114659	GRIP, handle	5	238	123035	RIVET, blind	7
116	15W737	BRACKET, tension, die	1	247	16A317	LABEL, brand, Thermolazer right	1
119	108851	WASHER, plain	6	261▲	16A468	LABEL, torch lighting instr	1
123	100023	WASHER, flat	5	262▲	16A469	LABEL, screed box lighting instr	1
139	111192	SCREW, cap flng hd	26	266	100021	SCREW, cap hex hd	2
146	107257	SCREW, thd forming	39	267	100846	FITTING, lubrication, st	2
153	123164	SCREW, sockethead, flat	4	279	100680	SCREW, cap, hex hd	2
155	116935	SCREW, cap, flnghd	2				
169	120476	BOLT, shoulder, 5/16	4				

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# Parts

## SmartDie™ Screed Box

- 256736 - 4 in. (10 cm)
- 257469 - 5 in. (12 cm)
- 256737 - 6 in. (15 cm)
- 257470 - 7 in. (18 cm)
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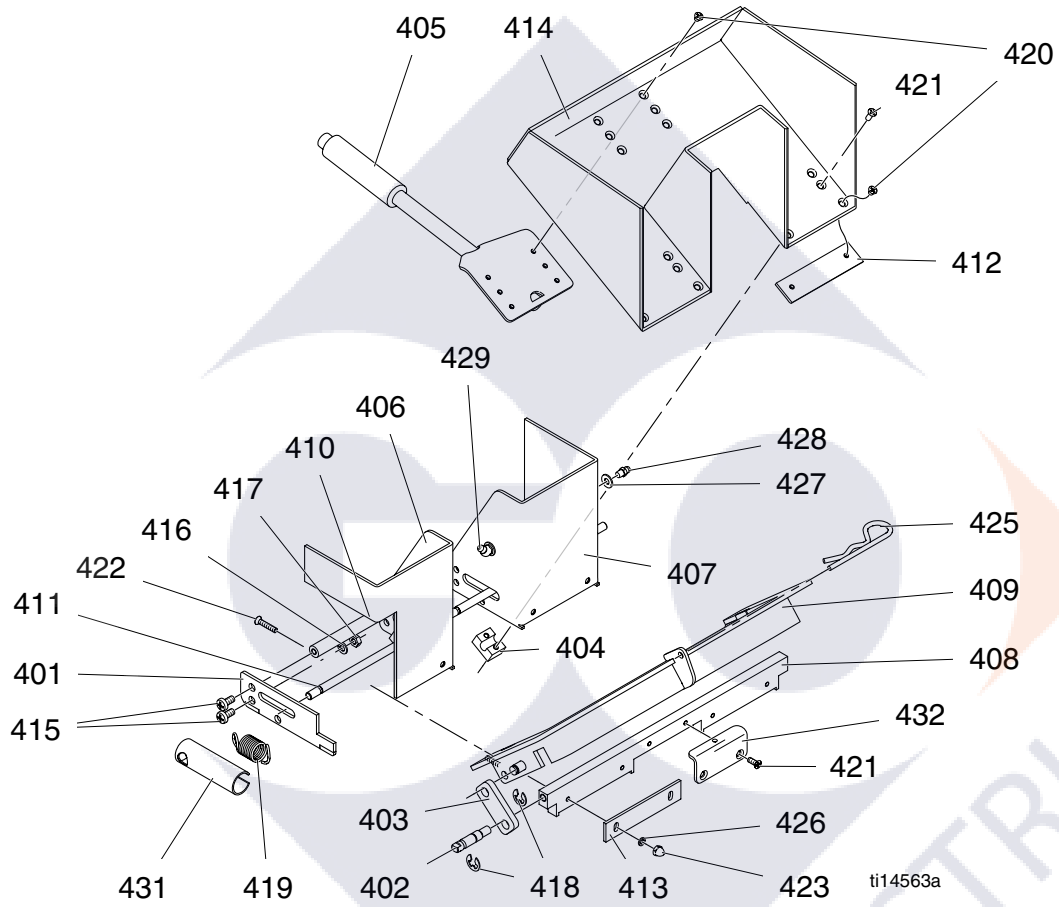
Ref.	Part	Description	Qty.	Ref.	Part	Description	Qty.
301	273044	PLATE, die runner w/carbide	2		15X826	SLIDE, die guide (257471)	1
302	15W745	SHAFT, front die bar	2		15X827	SLIDE, die guide (257472)	1
303	15V374	BAR, die link	2		15V383	SLIDE, die guide (256739)	1
304	15V371	BLOCK, pillow	2	311	15V375	BAR, reinforced angled (256736)	1
305	15W624	BRACKET, pivot (weldment)	1		15X832	BAR, reinforced angled (257469)	1
306	15V392	GATE, doctor (256736)	1		15V376	BAR, reinforced angled (256737)	1
	15X812	GATE, doctor (257469)	1		15X833	BAR, reinforced angled (257470)	1
	15V393	GATE, doctor (256737)	1		15V377	BAR, reinforced angled (256738)	1
	15X813	GATE, doctor (257470)	1		15X834	BAR, reinforced angled (257471)	1
	15V394	GATE, doctor (256738)	1		15X835	BAR, reinforced angled (257472)	1
	15X814	GATE, doctor (257471)	1		15V378	BAR, reinforced angled (256739)	1
	15X815	GATE, doctor (257472)	1	312	15X808	BAR, spacer (256736)	1
	15V395	GATE, doctor (256739)	1		15X836	BAR, spacer (257469)	1
307	15V384	BAR, front die, 90 ml (256736)	1		15X809	BAR, spacer (256737)	1
	15X816	BAR, front die, 90 ml (257469)	1		15X838	BAR, spacer (257470)	1
	15V385	BAR, front die, 90 ml (256737)	1		15X810	BAR, spacer (256738)	1
	15X817	BAR, front die, 90 ml (257470)	1		15X839	BAR, spacer (257471)	1
	15V386	BAR, front die, 90 ml (256738)	1		15X840	BAR, spacer (257472)	1
	15X818	BAR, front die, 90 ml (257471)	1		15X881	BAR, spacer (256739)	1
	15X819	BAR, front die, 90 ml (257472)	1	313	15V372	DISPENSER, die, trough (256736)	1
	15V387	BAR, front die, 90 ml (256739)	1		15X828	DISPENSER, die, trough (257469)	1
308	273027	YOKE, weldment (256736)	1		15V404	DISPENSER, die, trough (256737)	1
	257473	YOKE, weldment (257469)	1		15X829	DISPENSER, die, trough (257470)	1
	273028	YOKE, weldment (256737)	1		15V405	DISPENSER, die, trough (256738)	1
	257474	YOKE, weldment (257470)	1		15X830	DISPENSER, die, trough (257471)	1
	273029	YOKE, weldment (256738)	1		15X831	DISPENSER, die, trough (257472)	1
	257475	YOKE, weldment (257471)	1		15V406	DISPENSER, die, trough (256739)	1
	257476	YOKE, weldment (257472)	1	314	113783	SCREW, machine, pn hd	6
	257156	YOKE, weldment (256739)	1	315	100016	WASHER, lock	4
309	15V396	BAR, threaded torsion (256736)	1	316	100015	NUT, hex mscr	4
	15X820	BAR, threaded torsion (257469)	1	317	101134	RING, retaining, ext.	4
	15V397	BAR, threaded torsion (256737)	1	318	24E581	KIT, spring, extension (pkg 20)	1
	15X821	BAR, threaded torsion (257470)	1	319	123339	SCREW, mach, flat head, undercut	11
	15V398	BAR, threaded torsion (256738)	1	320	123340	SCREW, mach, flat head, undercut	4
	15X822	BAR, threaded torsion (257471)	1	321	123353	SCREW, mach, flat head	5
	15X823	BAR, threaded torsion (257472)	1	322	102432	NUT, speed acorn	5
	15V399	BAR, threaded torsion (256739)	1	324	123385	PIN, cotter, hairpin	1
310	15V380	SLIDE, die guide (256736)	1	325	100020	WASHER, lock	5
	15X824	SLIDE, die guide (257469)	1	326	100086	WASHER, plain	2
	15V381	SLIDE, die guide (256737)	1	327	100846	FITTING, st	2
	15X825	SLIDE, die guide (257470)	1	329	24C676	KIT, guard, spring, assembly (pkg 2)	1
	15V382	SLIDE, die guide (256738)	1				

# Parts

## SmartDie™ Screed Box

24B729 - 4-3-4 in. (10-8-10 cm)

256799 - 4-4-4 in. (10-10-10 cm)





# Parts List

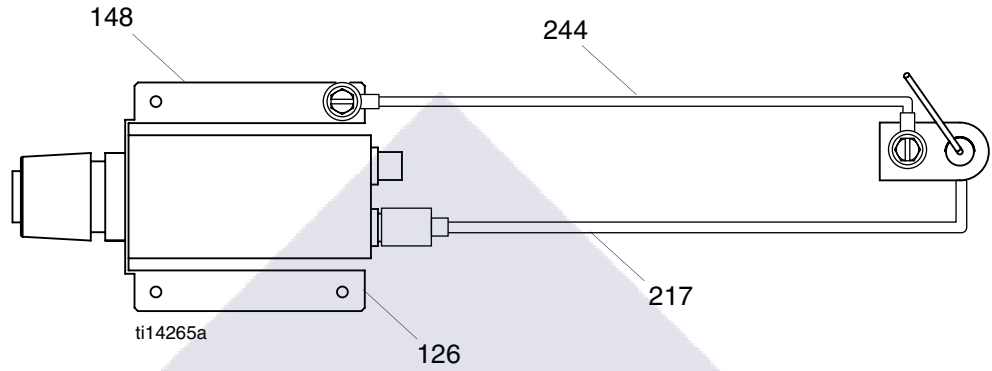
## SmartDie™ Screed Box

24B729 - 4-3-4 in. (10-8-10 cm)

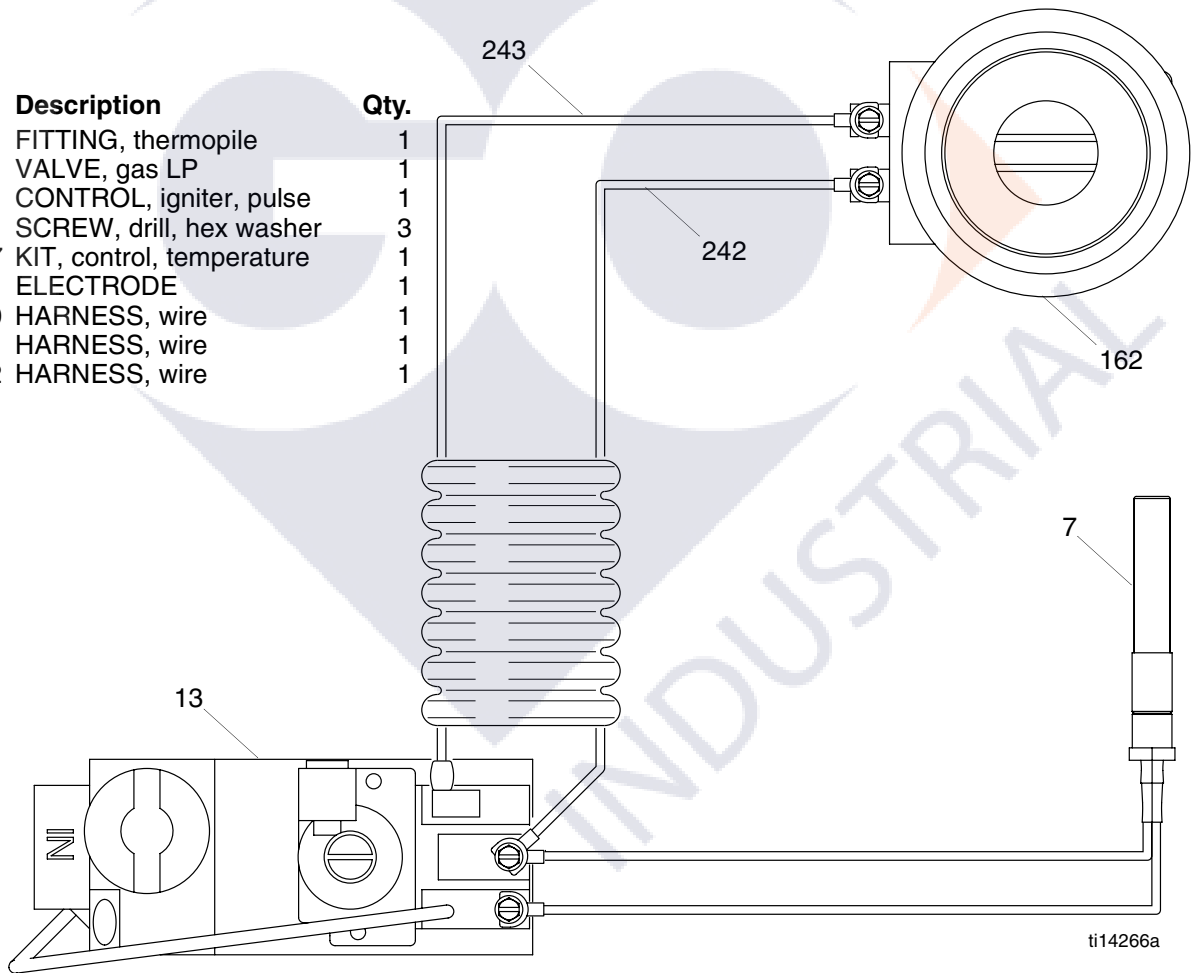
256799 - 4-4-4 in. (10-10-10 cm)

Ref.	Part	Description	Qty.	Ref.	Part	Description	Qty.
401	273044	PLATE, die runner w/carbide	4	415	113783	SCREW, machine, pn hd	12
402	15W745	SHAFT, front die bar	2	416	100016	WASHER, lock	8
403	15V374	BAR, die link	2	417	100015	NUT, hex mscr	8
404	15V371	BLOCK, pillow	4	418	101134	RING, retaining, ext.	4
405	15W624	BRACKET, pivot (weldment)	1	419	24E581	KIT, spring, extension (pkg 20)	1
406	15V653	GATE, double line doctor lf	1	420	123339	SCREW, mach, flat head, undercut	10
407	15V655	GATE, double line doctor rt	1	421	123340	SCREW, mach, flat head, undercut	10
408	15Y846	BAR, dl front die, 90 ml (24B729)	1	422	123353	SCREW, mach, flat head	4
	15V901	BAR, dl front die, 90 ml (256799)	1	423	102432	NUT, speed acorn	4
409	24B731	YOKE, 12 in. weldment (24B729)	1	425	123385	PIN, cotter, hairpin	1
	257156	YOKE, 12 in. weldment (256799)	1	426	100020	WASHER, lock	4
410	15V396	BAR, 4 in. threaded torsion	2	427	100086	WASHER, plain	4
411	15Y845	SLIDE, 12 in. die guide (24B729)	1	428	100846	FITTING, st	2
	15V383	SLIDE, 12 in. die guide (256799)	1	429	100847	FITTING, lubrication	2
412	15V375	BAR, 4 in. reinforced angled	2	431	24C676	Kit, guard, spring, assembly (pkg 2)	1
413	15X808	BAR, spacer, 4 in.	2	432			
414	24B730	BOX, double line weldment (24B729)	1				
	273035	BOX, double line weldment (256799)	1				

# Wiring Diagram



Ref.	Part	Description	Qty.
7	122944	FITTING, thermopile	1
13	16A911	VALVE, gas LP	1
126	123085	CONTROL, igniter, pulse	1
148	122667	SCREW, drill, hex washer	3
162	24C397	KIT, control, temperature	1
217	123184	ELECTRODE	1
242	16A270	HARNESS, wire	1
243	16A271	HARNESS, wire	1
244	16A272	HARNESS, wire	1











*All written and visual data contained in this document reflects the latest product information available at the time of publication.  
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