Service Manual

Dumper

6001



Machine models	**6001/6001 H**
Edition	**2.0**
Language	**English**
Item no.	**1000163656**

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0.10 Special Hazards

Battery

- In case of a frozen battery or of an insufficient electrolyte level, do not try starting the machine with battery jumper cables. The battery can burst or explode.
- Batteries contain caustic sulphuric acid. When handling the battery, observe the specific safety instructions and regulations relative to accident prevention.
- A volatile oxyhydrogen mixture forms in batteries during normal operation and especially when charging. Always wear gloves and eye protection when working with batteries.
- Starting the machine with a battery jumper cable can be dangerous if carried out improperly. Observe the safety instructions regarding the battery.

Tracks (Track dumpers)

- Repair work on the tracks must be carried out only by trained technical staff or by an authorized workshop.
- Defective tracks reduce the machine's operational safety. Therefore, check the tracks regularly for cracks, cuts or other damage.
- Check track tension at regular intervals.

Electric energy

- Use only original fuses with the specified current rating.
- In case of electrical system malfunctions, switch off the machine immediately, disconnect the battery (by using the battery master switch), and carry out troubleshooting procedures.
- When working with the machine, maintain a safe distance from overhead electric lines! If work must be carried out close to overhead lines, the equipment and attachments must be kept well away from them.
- If the machine comes into contact with a live wire:
- Immediately drive the machine out of the danger area.
- Warn others against approaching and touching the machine.
- Do not leave the machine until the line that has been touched or damaged has been safely de-energized!
- Make sure that work on the electric system is carried out only by a technician with appropriate training, in accordance with applicable electrical engineering codes.
- Inspect and check the electrical equipment of the machine at regular intervals. Defects such as loose connections or scorched cables must be repaired immediately.
- Observe the operating voltage of the machine/attachments.
- Always remove the grounding strap from the battery when working on the electric system.

Hydraulics

- Check all lines, hoses, and screwed connections regularly for leaks and obvious damage. Repair any damage and leaks immediately. Splashed oil can cause injury and fire!

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Engine capacities

Capacities	Model 6001	
	Tier 2 (Perkins)	Tier 3 (Deutz)
Fuel tank	70 l (18.5 gal)	
Engine oil (max.)	10 l (2.6 gal)	8.5 l (2.2 gal)/10 l (2.6 gal)
Coolant (without radiator)	2.7 l (0.7 gal)	
Radiator	5.36 l (1.42 gal)	10 l (2.6 gal)
Expansion tank	0.5 l (0.13 gal)	1.2 l (0.3 gal)

Overview of capacities: – *see Engine/machine fluids and lubricants (up to AB60997D)* on page 3-1

Engine tightening torques

Tightening torques	Model 6001	
	Tier 2 (Perkins)	Tier 3 (Deutz)
Cylinder-head bolt	50 Nm (37 lbf ft)	30 Nm (22 lbf ft)
1st pass	100 Nm (74 lbf ft) + 225° (short screws)	80 Nm (59 lbf ft)
2nd pass	100 Nm (74 lbf ft) + 270° (long screws)	160 Nm (118 lbf ft) + 90°
Connecting rod bearing screw	70 Nm (52 lbf ft) + 120°	30 Nm (22 lbf ft) 1st retightening angle: +60° 2nd retightening angle: +60°
Main bearing screw	245 Nm (181 lbf ft)	50 Nm (37 lbf ft) 1st retightening angle: +60° 2nd retightening angle: +45°
Flywheel screw (front)	115 Nm (85 lbf ft)	30 Nm (22 lbf ft) 1st retightening angle: +60° 2nd retightening angle: +30°

2.3 Travelling drive

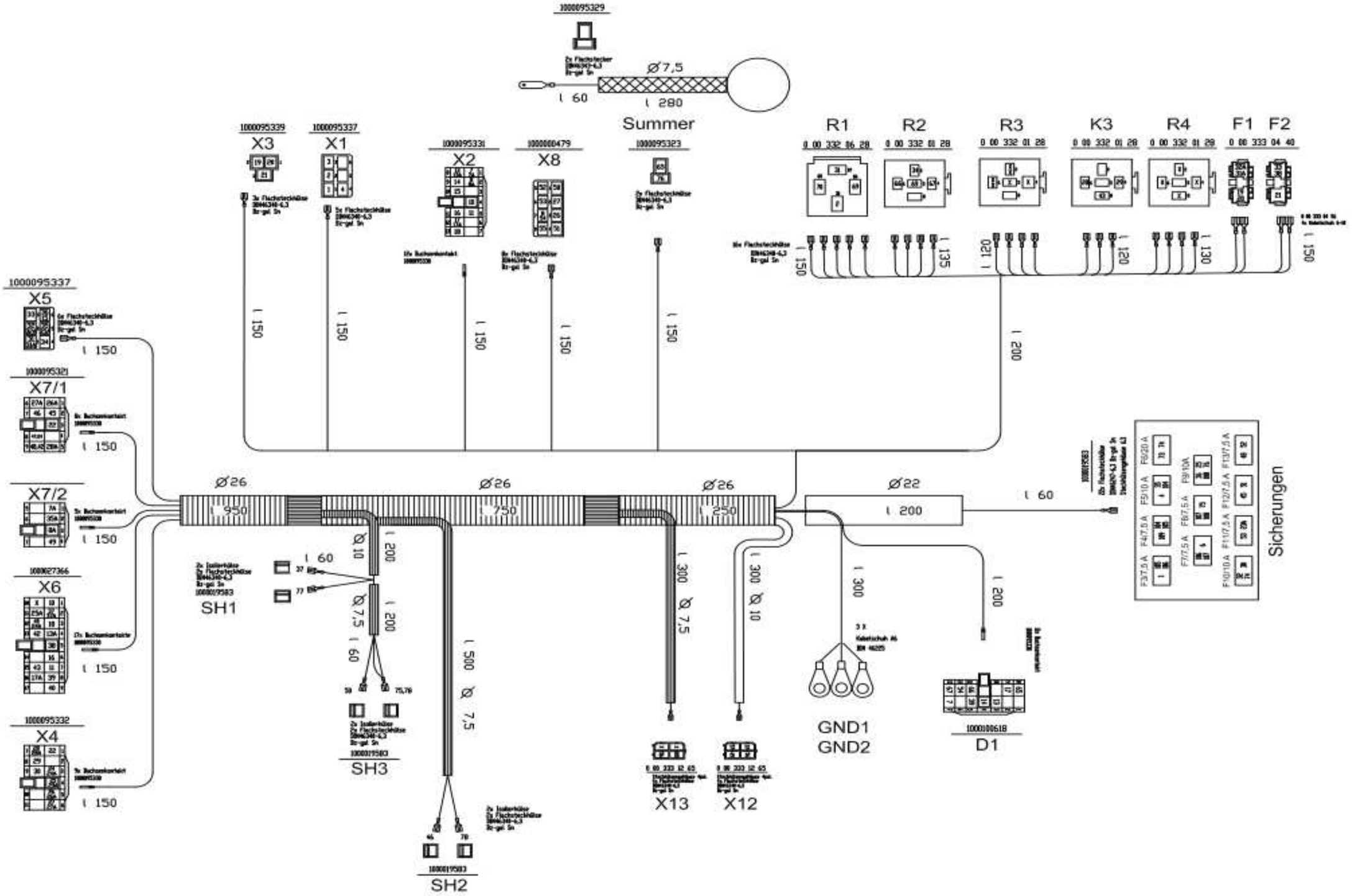
	6001	6001 Powershift	6001 H
	Tier 2 (Perkins)		Tier 3 (Deutz)
Type	Torque converter gearbox ITL SS620	ITL PS750	Hydrostatic drive
Design	2WD torque converter gearbox with electrohydraulic control	2WD torque converter gearbox with electrohydraulic control	Automotive control
Shift	Manual	Automatic (manual optional)	Electric
Speeds	4 forwards and reverse	4 forwards and reverse	2 forwards and 2 reverse
Transmission ratio	Up to 6.55:1	Up to 7.17:1	
Transfer gearbox			
Type	ITL	ITL	DANA
Transmission ratio	1:1	1:1	1:2.28
Cardan shafts			
Flange type	DANA 1480 Yoke	DANA 1480 Yoke	DANA 1410 Yoke

2.4 Brakes

Model 6001		Tier 2 (Perkins)	Tier 3 (Deutz)
Service brake	Design	Hydraulic pedal-operated wet dual-circuit brake	Hydraulic pedal-operated wet single-circuit brake
	Location	Brake discs in either axle	Brake discs in front axle
Parking brake		Disc brake with brake effect on transfer gearbox	Brake effect on front axle via eccentric shaft
		Brake effect on either axle via cardan shaft	Additional brake effect on rear axle via cardan shaft

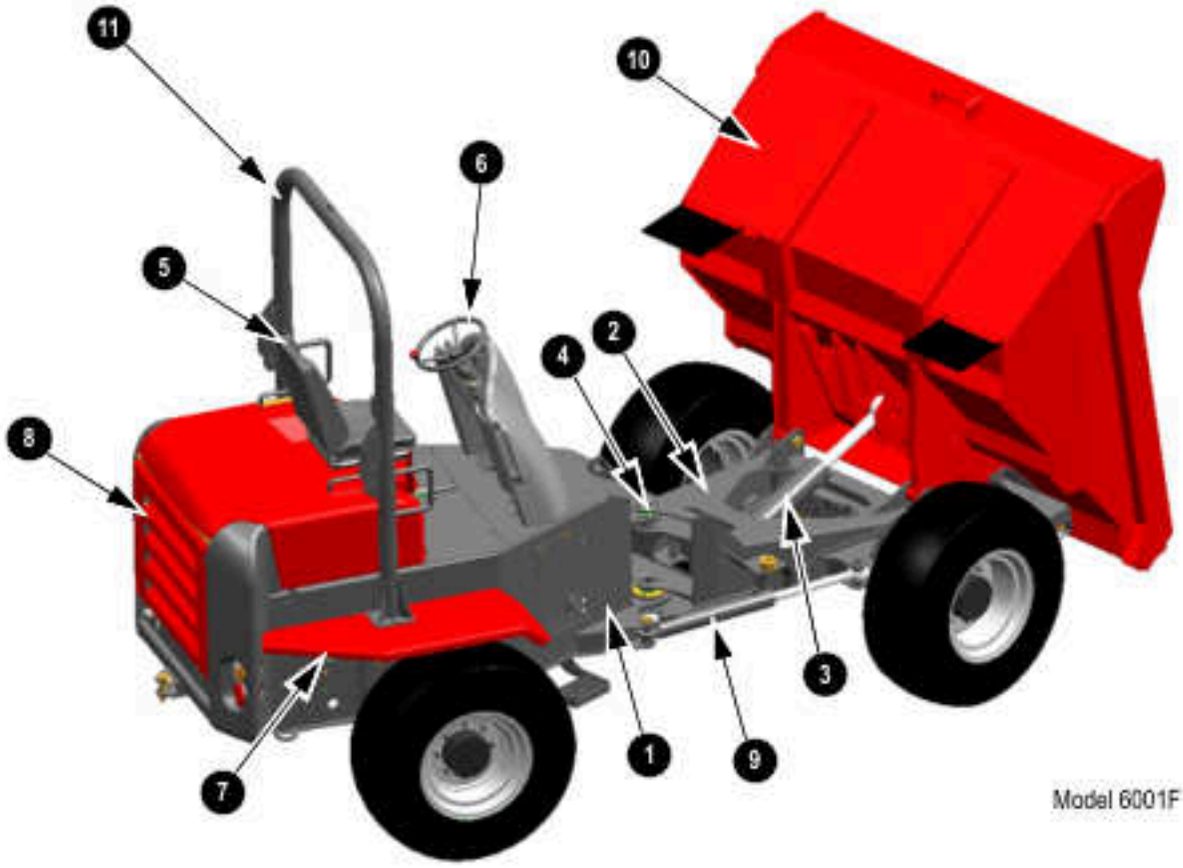
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10.13 Wiring harness 1000115003: main wiring harness (up to AB60997D)

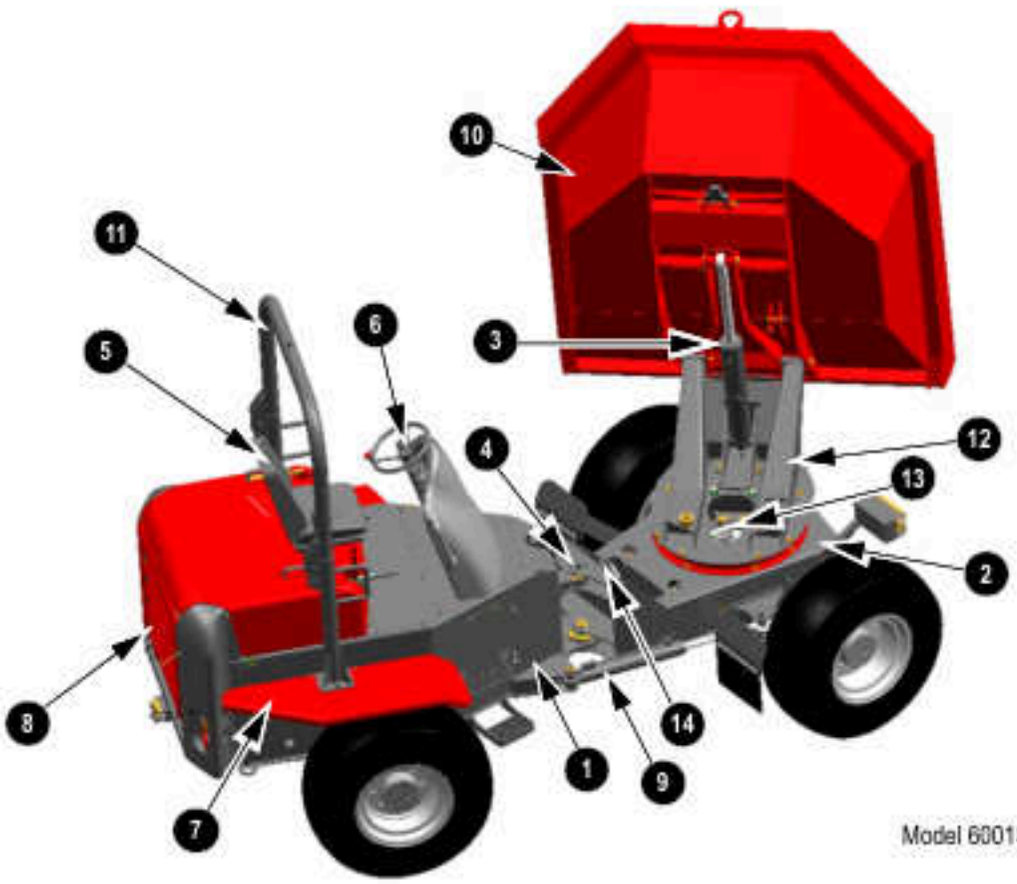


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1.3 Machine overview



Model 6001F



Model 6001S

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6.7 Wheel hub



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10.14 Wiring harness legend 1000182212: main wiring harness (from AD60001D)

Cable no.	From	PIN	Up to	PIN	Colour	mm²
1	M1		F1 12 V/30		red	10
3	M1		A4 12V/30		red	6
4	M1		F2 12 V/30		red	10
5	B10		A1 starter		wht/red	2.5
6	F3		S1 12V/30	1	red	6
7	F1		F11 12V/30	H	red	4
8	K30	30	F2 12 V/30		red	4
9	M1		F3 12V/30		red	4
10	S1	5	F4 12V/15	1	blu	4
11	S1	6	F9 12V/15	6	blu	4
12	B10		B11		wht/red	2.5
14	S1	3	K30 preheating	50	brn	4
15	S1	4	S1 preheating	8	brn	4
17	F4	A	X10 12 V/15 indicating instrument/relays	1	blu	1
20	F4	A	K30 cutoff solenoid/fuel feed pump	15	blu/red	1
21	F4	A	Y5 fuel feed pump	2	blu/red	1
26	K29	87	B7 preheating		brn	6
27	K30	H	B8		brn	6
28	X10	8	B5 alternator charge function telltale		pnk	1
29	B14	5	X10 alternator charge function telltale	8	pnk	1
30	B14	6	B6 engine oil pressure		wht/grn	1
31	B14	1	X10 engine oil pressure	10	wht/grn	1
32	B14	9	B4 engine temperature		blk/grn	1
33	B14	4	X10 engine temperature	14	blk/grn	1
34	S5		X10 hydraulic oil filter	6	org/wht	1
35	B1		X10 fuel sensor	4	vio/blk	1
39	K35	30	S1 starter	7	wht/blk	1
40	K32	30	K32 starter	86	wht/blk	1
42	S9		B9 12V drive		gry	1
43	X7/2	2	S11 12V drive	1	gry	1
44	X7/2	2	F5 12V drive	B	gry	1

Cable no.	From	PIN	Up to	PIN	Colour	mm²
73	X8	2	K33 high beam	87	grn/red	1
75	S19	3	F11 turn indicators 12 V/ 30	8	red	1
76	S19	1	F7 turn indicators 12 V/30	D	blu	1
77	S19	4	K10 turn indicators +	31	blu/wht	1
78	X7/1	5	S19 turn indicators COM	5	blu/yel	1
79	S19	5	K10 turn indicators COM	T	blu/yel	1
80	K10	15	X10 turn indicator telltale	15	gry/red	1
81	X7/1	1	S19 right-hand side turn indicators	7	gry/grn	1
82	S19	7	X8 right-hand side turn indicators	8	gry/grn	1
86	X7/1	6	S19 left-hand side turn indicators	6	gry/yel	1
87	S19	6	X8 left-hand side turn indicators	7	gry/yel	1
90	F6	C	B2 left-hand side turn indicators		gry/yel	1
91	B2		S9 12V brakes/horn		org/blk	1
92	X7/1	7	B2 12V brakes/horn		org/blk	1
93	K29	30	F3 12V brakes/horn		red	6
94	S11	1	S11 parking brake	9	blk/red	1
95	S11	5	Y1 parking brake	1	blk/red	1
97	S9		X8 brake lights	6	red/blk	1
100	K34	87	X10 parking brake telltale	9	red/wht	1
101	K32	87	X10 preheating telltale	12	gry/red	1
102	K30	TK	K32 start interlock	86	wht/blk	1
103	K29	86	K30 start interlock	R	wht/grn	1
104	F8	E	H28 rotating beacon		vio	1
105	K35	87	A1 horn		wht/blk	1
110	K32	85	K10 earth	53s	blk	1
111	K34	30	K34 earth	85	blk	1
112	K34	86	B9 earth		blk	1
113	K32	85	K30	L	wht/red	1
114	K30	TK	K30	15	blu/red	1
115	K29	85	K30 earth	31	blk	1
116	K29	85	K35 earth	85	blk	1

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