CASE CONSTRUCTION

SERVICE MANUAL

WHEEL LOADER

821E
TIER 3

84299244
(Replaces 87364100)

Revised December 2009
Issued September 2006

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110 – Rear Wiper Motor

Located in top of rear cab head liner.

Check Points	Correct Reading	Possible Cause of Bad Reading
Terminal for wire 0-MA to ground	Continuity	Bad ground circuit.
NOTE: *Make sure the rear wiper and washer switch (107) is in the OFF position.*		
Between terminals for wires 68C-A and 68L-A	Continuity	Bad rear wiper and washer switch (107).
NOTE: *Put the master disconnect switch and the ignition switch in the ON position.*		
Terminal for wire 19K-C to ground	24 volts	Check fuse ECA-F13, also check circuit 19K.
NOTE: *Put the rear wiper and washer switch (107) in the ON position.*		
Terminal for wire 68C-A to ground	24 volts	Bad rear wiper and washer switch (107).
Terminal for wire 68L-A to ground	0 volt	Bad rear wiper and washer switch (107).
NOTE: *If the readings are good, replace the rear wiper motor.*		

111 – Rear Washer Pump Motor

Located in left side engine compartment.

Check Points	Correct Reading	Possible Cause of Bad Reading
Terminal for wire 0-BL to ground	Continuity	Bad ground circuit.
NOTE: *Put master disconnect switch and ignition switch in ON position. Depress and hold rear wiper and washer switch (107) in WASH position.*		
Terminal for wire 68W-A to ground	24 volts	Bad rear wiper and washer switch (107) Also check wires 68W-A and 68W.
NOTE: *If the readings are good, replace the rear washer pump motor.*		

112 – Front Washer Pump Motor

Located in left side engine compartment.

Check Points	Correct Reading	Possible Cause of Bad Reading
Terminal for wire 0-B to ground	Continuity	Bad ground circuit.
NOTE: *Put the master disconnect switch and the ignition switch in the ON position. Connect volt meter to check point then push down on front wiper and washer switch (108).*		
Terminal for wire 63W-A to ground	24 volts	Bad front wiper and washer switch (108), also check circuit 63W.
NOTE: *If the readings are good, replace the front washer pump motor.*		

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CODE	DEFINITION	DESCRIPTION AND POSSIBLE STEPS FOR REPAIR
3253	Error status ADC monitoring	Buffer overrun No additional information available at time of print
3254	Error status ADC monitoring	
3255	Error status ADC monitoring	
3256	Error status ADC monitoring	
3258	Short-circuit to battery at high side power stage	Short circuit of wiring to external source or inside relay. Check wiring or replace relay
3259	Short-circuit to ground at high side power stage	Short circuit of wiring to ground or inside relay. Check of wiring or replace relay
3260	Open load at low side power stage	Broken or disconnected wiring or defective relay. Check wiring or replace relay
3261	Short-circuit to battery or excessive temperature at low side power stage	Short circuit of wiring to external source or inside relay. Check wiring or replace relay
3262	Short-circuit to ground at low side power stage	Short circuit of wiring to ground or inside relay. Check wiring or replace relay
3265	Energizing time exceeds limit of over run monitoring	Electronic disturbances, requested torque increase via tester, wrong application of injection relevant parameters, defective ECU. Check injection relevant application, if failure persists replace ECU
3266	Plausibility error in engine speed check	Electronic disturbances, internal ECU problem. If failure persists after reinstallation replace ECU
3278	Supply voltage CJ940 upper limit	Excessive voltage supply of a CJ940 component: High battery voltage, defective wiring, internal defect of the EDC. Check the battery for correct voltage supply, check wiring. If defect remains replace EDC (internal defect)
3279	Supply voltage CJ940 lower limit	Insufficient voltage supply of a CJ940 component: Low battery voltage, defective wiring, internal defect of the EDC. Check the battery for sufficient voltage supply, check wiring. If defect remains replace EDC (internal defect)
3280	Sensor supply voltage 1 high	Excessive battery voltage, defect in wiring harness, electrical failure in connected sensors or in the EDC. Check battery voltage, check wiring for correct voltage supply of the sensor and the EDC, replace EDC

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SPECIFICATIONS

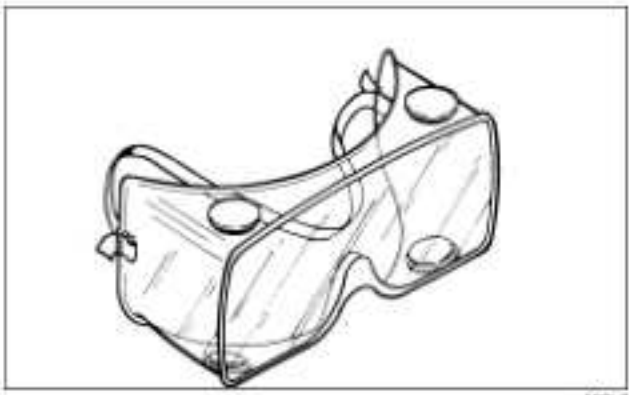
Air conditioning system refrigerant capacity ..... 1.7 kg (3.75 lbs)

SPECIAL TOOLS



A22034

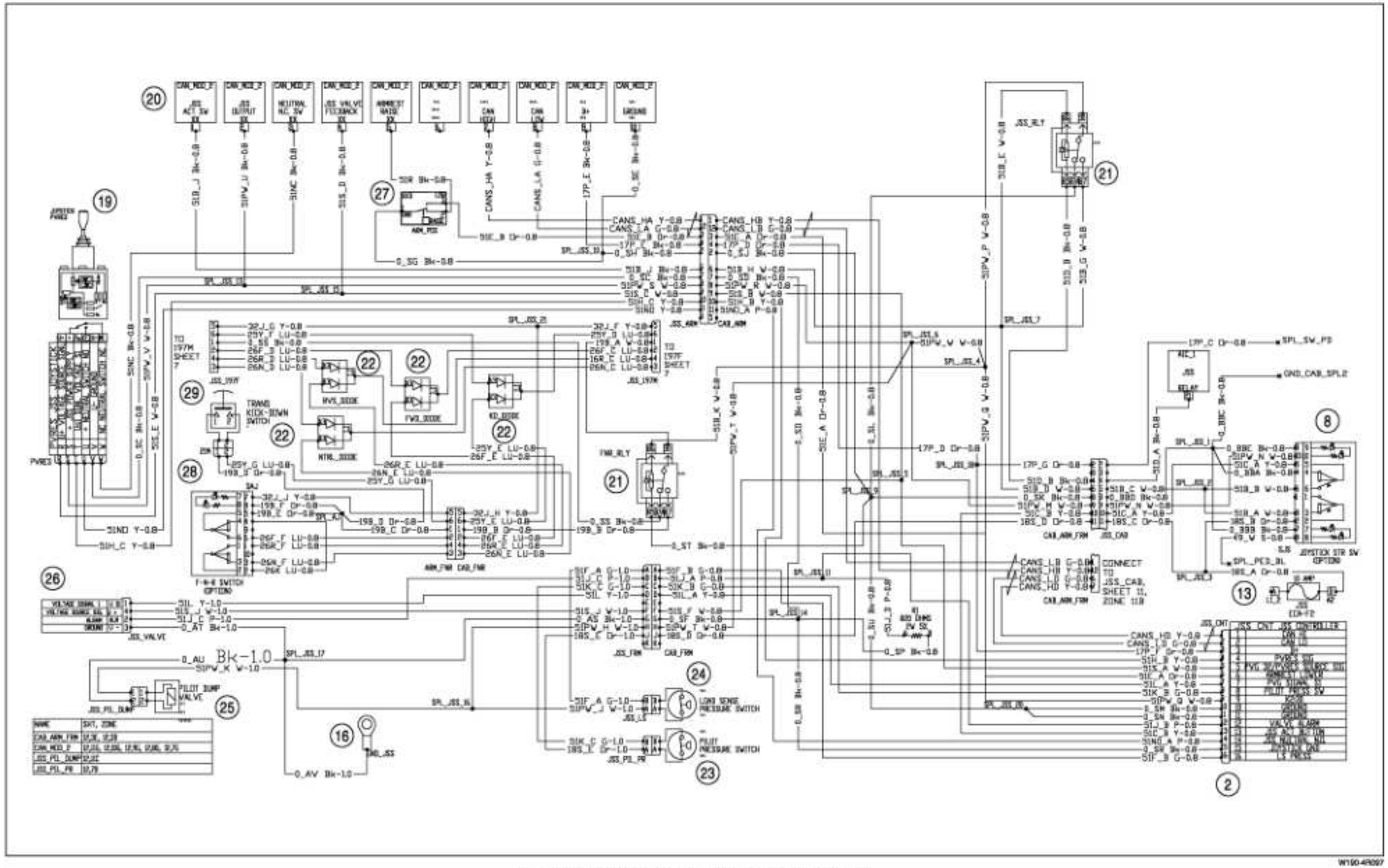
REFRIGERANT RECOVERY, RECYCLING AND RECHARGING STATION OEM-1415



109L7

SAFETY GOGGLES CAS-10073-3

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WIRING DIAGRAM OF THE JOYSTICK STEERING SYSTEM

5-15960

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