## **GGHS\_Log Report - in chronological order**

date 1	Entry	Category	Comments
11/27/2007	Check Antifreeze - Fluid level about 1 - 1/2 gals low.	Engine	Water Anti Freeze
	Filled and ran engine to 130 deg. And tested to -30 degLarry Spencer Engine ran rough even after warning up -LS		
11/29/2007	Clean and Gap plugs and points Runs a little smoother - rechecked antifreeze (-20 today) Needs Recheck	Ignition	anti freeze coolant plugs and points
2/2/2008	Compression Test 1 - 75 2- 62 3- 65 4- 62 5- 65 6 (?. JB) -Charles Purge (?)	Maintenance	compression test
3/31/2008	Compressor Removal 2 hours Removed old worn out compressor for replacement - Larry Spencer	Air Brakes	Brakes
4/1/2008	Pull transmission install new pocket bearing Ed-Lou	Trans-Driveline	
4/24/2008	Compressor Work - to Frontier for belt pulley installation - Larry Spencer	Air Brakes	
4/25/2008	Pulled transmission 5 hours - Fly Wheel and pressure plate burnt - Clutch Disk too worn to reuse. Will replace clutch parts including throw out bearing - Larry Spencer	Trans-Driveline	
5/10/2008	Parts order for clutch and rebuild of pressure plate at Cortez Diesel - Larry Spencer	Trans-Driveline	clutch pressure plate

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5/27/2008	Pulled Pilot Bearing Replacement Part #303-cc from "Car Quest"	Trans-Driveline	Pilot bearing Part Num. 303-cc "Car Quest"
	- Larry Spencer		4000
6/3/2008	Assembled Clutch Fly Wheel 90# Torque - Larry Spencer	Trans-Driveline	Clutch and Fly Wheel
6/10/2008	Rec'd used pinion gear taken from Goose #4 and	General	
	brought back red Engine from CRRM in Golden - Larry Spencer		
6/14/2008	Compressor work adapting connecting parts - Larry Spencer	Air Brakes	
6/19/2008	Tune up and compressor Tune up parts: Rotor Napa Part #RR83 Rotor (Dist.) Cap NAPA part #RR95 Spark Plugs either Autolite 86 or NGK5858 VRU? XR4? Fuel Filter FF3424	Maintenance	
6/22/2008	Air Compressor - finished installation and set pressure to 80# - Larry Spencer	Air Brakes	
6/22/2008	Test run after air compressor install Started and run to Fake tank and back. Test OK, New clutch tested and run in OK (Charles and Larry)	Air Brakes	Clutch
6/23/2008	Paint rear door and window grab irons -J. McKenzie	Body	Paint
6/24/2008	Paint All lettering on Rights side - J. McKenzie	Body	Paint
6/25/2008	June 25, 2008 Painted Side Bars in Rear Box (Silver) - Larry Spencer	Body	Paint
6/25/2008	Adjust Air Compressor Ed, Louie, Larry	Air Brakes	

date .	Entry	Category	Comments
6/25/2008	8:00 am loaded on Nielson/Skanska truck and moved to Chama, NM Noon, unloaded at Chama and moved to C&TS Station Larry Spencer	General	
6/26/2008	Oil Change 10w - 30 and filter Adjust brakes Rear Dif oil change with 80w-90 Gear Oil Repair Gas Pedal linkage Covers put on Throw out Bearing levers Hood and Fender Paint and Varnished side panels over lettering Greased all fittings underside and drive	Maintenance	Paint
6/27/2008	8:00 am Loaded on Nielson/Skanska Truck and moved to Chama, N.M. Noon, unloaded at Chama and moved to C+TS Station -Larry Spencer	General	
6/27/2008	Shakedown Run to Cumbres. Brake check, air check then left for 14 mile test run to Cumbres Pass. All OK to Cresco Tank then compressor noise developed Chattering. Air Pressure stayed 75-84 lbs. Noise continued to increase and it was "ordered" to stop at Coxo siding. Just after stopping, compressor seized up. Check valve kept (prevented) a total lose of pressure. Belt cut off and proceeded to Cumbres Pass.	Air Brakes	
6/28/2008	Revenue Passenger Run 11:00 am checked and tested air braked system and proceeded to Antonito from Cumbres Pass. All OK after operation check - Oil, brake rigging, belts, radiator, chains and drive train.	Safety	General
6/28/2008	Replace compressor. Installed Bendix "Tru Flo" model 227432. Also new compressor drive belt, inspected oil pan and changed oil (30w).	Air Brakes	model 227432 Bendix "Tru Flo"
6/29/2008	Antonito to Osier Morning Checks - Oil, Air system, adjust brakes as needed - Larry Spencer	Safety	

Entry	Category	Comments
Running Checks - Checked Brakes and water at Lava, Sublet and Osier O.K. Larry Spencer	Safety	Running checks
After Operation Checks - Oil, brakes, belts, radiator and chains Note: on today's run, noticed chain noise seeming to increase. They sag as always, but checked OK for function and safety.	Trans-Driveline	Chain
Running Checks - Brake Checks x 3 and Radiator Filled at Lava TankChain noise continues to increase, but checks OK Larry Spencer	Trans-Driveline	Safety, Chain Noise, Driveline
Antonito to Osier Morning Checks. = Fluids, Air and Brake System - Adjusted Brakes Larry Spencer	Safety	
Last run checks = Fluids, Air system and Brakes OK Consulted 4 different individuals about drive chain noise. General consensus was to replace them. Larry Spencer	Trans-Driveline	
Replace drive chains - Purchased 2 drive chains at John Deere. Store in Alamosa and new half links enough to make connections. (10 feet of size 100 chair and 6 half links). Larry Spencer	Trans-Driveline	chain
Installed new chains Snug fit chains and test run 2 miles OK - Larry Spencer	Trans-Driveline	chains
Adjust new chains. First installation on 7-2 looked too tight so added another half link to each and test run again. Consensus of 4 knowledgeable men that chains were now too loose, so went back to previous configuration, consisting of 10 ft. of chain with 3 half links, no further test Larry Spencer	Trans-Driveline	chains
Noticed Hot Right Front Wheel Hub on pilot truck.	Trans-Driveline	bearing
Antonito/ Osier (Morning checks) Fluids, Air and Brakes O.K Larry Spencer	Safety	
	<ul> <li>water at Lava, Sublet and Osier O.K. Larry Spencer</li> <li>After Operation Checks - Oil, brakes, belts, radiator and chains</li> <li>Note: on today's run, noticed chain noise seeming to increase. They sag as always, but checked OK for function and safety.</li> <li>Running Checks - Brake Checks x 3 and Radiator Filled at Lava TankChain noise continues to increase, but checks OK Larry Spencer</li> <li>Antonito to Osier Morning Checks. = Fluids, Air and Brake System - Adjusted Brakes Larry Spencer</li> <li>Last run checks = Fluids, Air system and Brakes OK Consulted 4 different individuals about drive chain noise. General consensus was to replace them. Larry Spencer</li> <li>Replace drive chains - Purchased 2 drive chains at John Deere. Store in Alamosa and new half links enough to make connections. (10 feet of size 100 chair and 6 half links). Larry Spencer</li> <li>Installed new chains. Snug fit chains and test run 2 miles OK - Larry Spencer</li> <li>Adjust new chains. First installation on 7-2 looked too tight so added another half link to each and test run again. Consensus of 4 knowledgeable men that chains were now too loose, so went back to previous configuration, consisting of 10 ft. of chain with 3 half links, no further test Larry Spencer</li> <li>Noticed Hot Right Front Wheel Hub on pilot truck.</li> <li>Antonito/ Osier (Morning checks) Fluids, Air</li> </ul>	Running Checks - Checked Brakes and water at Lava, Sublet and Osier O.K. Larry SpencerSafetyAfter Operation Checks - Oil, brakes, belts, radiator and chains Note: on today's run, noticed chain noise seeming to increase. They sag as always, but checked OK for function and safety.Trans-DrivelineRunning Checks - Brake Checks x 3 and Radiator Filled at Lava TankChain noise continues to increase, but checks OK Larry SpencerTrans-DrivelineAntonito to Osier Morning Checks. = Fluids, Air and Brake System - Adjusted Brakes Larry SpencerSafetyLast run checks = Fluids, Air system and Brakes OK Consulted 4 different individuals about drive chain noise. General consensus was to replace them.Trans-DrivelineReplace drive chains - Purchased 2 drive chains at John Deere. Store in Alamosa and new half links enough to make connections. (10 feet of size 100 chair and 6 half links). Larry SpencerTrans-DrivelineAdjust new chains. First installation on 7-2 looked too tight so added another half link to each and test run again. Consensus of 4 knowledgeable men that chains were now too loose, so went back to previous configuration, consisting of 10 ft. of chain with 3 half links, no further test.Trans-DrivelineNoticed Hot Right Front Wheel Hub on pilot ruck.Trans-DrivelineNoticed Hot Right Front Wheel Hub on pilot ruck.Trans-Driveline

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8/1/2008	Special Note: Complete Safety Checks are performed each morning and at the top of each hill before proceeding. RAILFEST	Safety	
8/1/2008	each hill before proceeding. RAILFEST RAILFEST. On last run from Silverton to Durango OIL PRESSURE was lost from 40# to 10#. At Needleton Siding. Thinking we may have spun a bearing I shut #5 down. "ED" We towed it to Durango, and next morning hauled it to Dolores. (Proceeding) dropped oil, pulled filter, sawed into it, no metal or shiny flakes could be found. Pulled pressure spring and relief ball, looked good with clear orifice. Garry Marrifield sent off oil sample. Came back Good. Also no antifreeze could be found in the oil. We filled motor with Rotella SAI 15-40. H.D. OIL AND NEW filter. Started motor., pressure immediately went back to 40# and sounded good ED+;LARRY I RECOMMEND to never use ETHER AGAIN to start the engine. (Wayne Brown idea) as it is widely know in the industry to cause blown	Engine	multi comments
	head gaskets. ED. Installed tachometer and never run motor over 1000 rpm until water temp starts up. Then never over 2100 rpm at any time. ED. Although running rough with regular		
	maintenance #5 and new plug wires #5 ran in Chama fairly well.		
8/1/2008	New Drive Shaft and Carrier bearing Ed-Lou- Larry	Trans-Driveline	
11/1/2008	Over the winter of 2008 + 2009 Drive Truck was removed and spent those months in SKANSKA'S SHOP being rebuilt by GARRY MARYFIELD and his crew.	Trucks	Drive truck

Category			Comments
2/1/2009	Extra Air Tank installed, more air reserve, more safety ED + LARRY	Air Brakes	Safety and General
3/1/2009	Had 6 volt generator rebuilt to 12 volts. Spent next several months trying to find compatible regulator. Finally bought two and sent them and generator to Ogden Utah, put on the bench, tested and adjusted to be compatible. Has worked good since then. (The Spare 12 volt regulator has been polarized.) ED "It is now rebuilt as a 12 volt alternator in the original generator housing." - from conversation with Larry Spencer and Joe Beringer and Alan Jannuzzi in Maricopa, AZ on Tuesday, 8/5/2014 ("Alternator' may have been a slip of tongue or misunderstood by me, as it still seems to act and look like a DC generator to me. AZ Joe)	Electrical	Spare 12 volt regulator has been polarized.
4/1/2009	Install Electrical Fuel Pump to be used when original mechanical one fails. ED	Fuel	Engine Fuel Pump
4/1/2009	New Tow Bar Built. Larry	General	Tow Bar
4/25/2009	Got Drive Truck back from SKANSKA Shop and installed by Larry, Jerry, Lew, Louie, Bill and Ed.	Trucks	Power Truck
5/1/2009	SKANSKA transported #5 to Golden. #5 Performed quite well and a good time was had by all. Regular Maintenance, no major problems.	General	Golden Colorado Railroad Museum
6/1/2009	Major Tune up including valve adjust. First time since motor was rebuild by Marcell. Motor now starts good, sounds good, with lots more power and uses less fuel. Ed + Larry	Tune Up	see next records June 29, 2008
4/1/2010	Jerry can be commended for most all of the painting and maintenance of paint on #5. THANK YOU, JERRY	General	COMMENDATION JERRY
4/1/2010	Installed newly caned seats. Lou, Louie, Dense, Larry and Ed	General	Seats

date .	Entry	Category	Comments
4/1/2010 #4	After many months searching found	General	Replacement Pinion for
#4	replacement pinion for #4. Delivered to Karl for #4 as well as new motor gasket kit. Ed + Louie V		#4
5/1/2010	Dolores Kindergarten children and their teachers	General	Mission
5/1/2010	Dolores 7th grade and teachers	General	Mission
5/1/2010	Dolores 3rd grade children and their	General	Mission
5/1/2010	Free Rides Group of Gracious People from England	General	Mission
5/1/2010	Skanska Construction Transported #5 to RR Museum in Golden, CO. A good time was	General	Engine block, transmission, clutch assy. Spare
	had by all. Upon return trip and extra motor block, clutch assy. And transmission returned to Dolores with #5. A GMC 361.		
5/1/2010	GGHS has given free rides on house track to Boy Scouts of America, Their sponsors and parents.	General	Mission
5/1/2010	All 4 Bearings on Front Truck were removed, re machined, replaced, repacked and replaced, Lew, Louie, Larry and Ed.	Trucks	bearings
5/1/2010	Frontier Machine found and ordered 2 new rubber caps for air brake control valve I	Air Brakes	Question did the extra caps get to Dolores
	installed and are still at Frontier Machine ED.		GGHS?
6/1/2010	GGHS held several group meetings and seminars about general mechanical and operational procedures with main topic of being aware of everything going on in the environment with SAFETY #1 PRIORITY.	Safety	Mission
6/1/2010	Removed, cleaned and re-assembled in line air pressure regulator. Mapped routing of air lines. Lew, Louie, Ed and Frontier Machine.	Air Brakes	
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date 1	Entry	Category	Comments
7/5/2010	Drive Shaft During run, noticed increase in noise in drive train. Upon return to Antonito discovered that rear section of drive shaft had been installed out of phase with front (by Wayne Brown last fall). Adjusted but only a temporary fix Larry	Trans-Driveline	
	Spencer		
7/5/2010	Antonito to Osier - Morning Check: Fluid, Air, Brake, O.K Larry Spencer	Maintenance	Antonito - Osier
7/5/2010	approx. Date? Power Truck pivot Rear Truck Pivot Oiled generator	Maintenance	trucks generator
7/5/2010	Date? Upon return to Antonito, Pulled wheel and found bearing bushing too worn to reuse wheel hub. Replaced Hub - Larry Spencer	Trucks	Wheel bearing
7/6/2010	Antonito - Osier Morning check: Check O.K. Adjusted brakes - Larry Spencer	Trans-Driveline	
7/7/2010	Antonito - Osier Morning check: Check O.K. Adjusted brakes Brake Check Extra Brake Check and Adjustment on top of Cumbres Pass for run to Chama - Larry Spencer	Trans-Driveline	
7/8/2010	Return to Dolores Returned to Dolores Nest (sic) O.K Larry Spencer	General	
7/10/2010	Pressed zerks Throw out bearing 3 4 U- joints 1 drive line spline	Trans-Driveline	

date 1	Entry	Category	<b>Comments</b>
7/10/2010	Pinion Gear - Removed pinion gear for check due to possible wear from bad out of phase drive shaft. Discovered extreme wear on gear and it had to be tossed! Installed pinion gear from #4 installed,- no more use of ether. Ed, - Ed, Larry, Lew.	Trans-Driveline	pinion gear
6/6/2011	Hobbs Meter installed on the ignition switch. Located on cowling under the dash on the left of the motorman's seats. Louie Vallejo and Lew Matis	Engine	Hobbs meter
6/7/2011	Installed new fuse box - has 8 circuits in same order as original and has space for 2 additional circuits Louie and Lew	Electrical	
6/7/2011	Conducted Air Pressure test. Ran #5 until compressor kicked off at 81 lbs. With air brakes NOT applied pressure was still 80 lbs after 3 minutes. Air brake was applied and the following times and pressures were recorded. Pressure dropped on application to 76 lbs. at 1 min. press was 70lbs. At 3 min. press. 59 lbs at 5 min. press 47 lbs at 10 min. Press 12 lbs at 15 min press 0 lbs. Louie Lew	Air Brakes	
6/14/2011	<ul> <li>Conducted air pressure test - Pressure run to full pressure. 80 lbs, compressor kicks in at 68 lbs.</li> <li>1. 9.7 seconds from 68 to 80 lbs after brake applications</li> <li>2. Brakes applied compressor kept pressure at 77 lbs for One minute.</li> <li>3. Motor off brakes applied, letting it bleed down.</li> <li>4. Tank pressure at 5 lbs, started engine; 1 min 6 sec to 80 lbs. Larry, Louie, Lew</li> </ul>	Air Brakes	

date 1	Entry	Category	<b>Comments</b>
6/16/2011	Grease all zerks. Oiled water pump, starter and generator Lew Matis	Maintenance	General
6/14/2012	Shake down at Colo. RR Museum Brake Check Museum Loop - 5 laps (OP) Larry Spencer	Air Brakes	
6/16/2012	CRRM; Fluid Check and Brake Check all OK - Larry Spencer	Safety	
6/17/2012	Fluid and Brake check OK Larry Spencer	Safety	
6/18/2012	CRRM Load to Dolores Fluid and Brake check OK Larry Spencer	Safety	Maintenance, General
6/30/2012	Installed new pressure regulator and gauge at regulator. Removed and serviced air brake handle and valve and water filter. And performed air brake system check. AL O.K. Louie V	Air Brakes	
6/30/2012	Complete Maintenance Check Greased all zerks, checked oil, checked belts, checked air system (See below) for additional on air system - Larry Spencer	Maintenance	
7/2/2012	at Chama, Brake and air system checks	Safety	Safety and
	system checks - all O.K. Louie Vallejo	Maintenance,	general
7/3/2012	System checked: Oil, Belts, Brakes, lights O.K. Louie Vallejo	Safety	
7/3/2012	Air Horn Repaired	Safety	
7/4/2012	Chama - C&TS System Checks O.K. Belts, Oil Brakes and Lights OK	Safety	C&TS
7/5/2012	C&TS Through 7-7-2012 Bearings, hubs checks and oil and G Louie Vallejo	Safety	Maintenance
7/5/2012	C&TS Systems Check - Oil Belts, compressor and Hoses adjusted compressor belt Louie Vallejo	Safety	C&TS
8/13/2013	All Brake shoes and Brake rigging, cables adjustments all OK	Maintenance	brakes cables

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8/13/2013	Greased all fittings. General Maintenance Repacked rear truck oil cups - Larry S	Maintenance	
8/13/2013	Changed oil and filter - used about 7 qts. Rotella 15-40 Larry S	Maintenance	
8/13/2013	air compressor, air hoses pressure settings, brake actuator cans, all checked OK	Maintenance	air compressor, brake
8/20/2013	Gas tanks, about 20 gals in each tank after return from Durango and Silverton.	General	gas
11/1/2013	Front truck work continued. Removed bearing bolts, rolled axels out and separated top and bottom of bearings. NOTE: Conductor's Reports had recordings of higher temperatures on this bearing. during 2013 season. Right rear bearing had always run 15-30 degrees warmer than the other three. A shallow groove machined across the top of the bearing was almost gone at edge due to bearing wear. Groove was established using 1-1/2" - 2" fragment of a hacksaw	Trucks	bearing front truck
11/2/2013	Serviced front truck. Two bottle jacks used with heavy timbers. To raise front end bolts on left rear wheel were loosened so flange could clear the frame (note: raising front end too high can pinch the vertical exhaust pipe between the top of the cab and front wall of rear section.) Written May 17th by Lew Matin	Maintenance	front truck

date 1	Entry	Category	<b>Comments</b>
1/1/2014	Front truck re-assembled: according to stamped markings on bearings (FR & RR; LF & :R) the truck was last put in backward as the markings were all opposite. So the truck was reassembled by rotating axels, bearing and truck frame 180 degrees. This kept all 3 components to remain relative to their original configuration, but the truck would be remounted correctly. The one bearing that ran hotter is now located on the left front. It's temperature relative to the other three should be monitored.	Trucks	bearing front truck maintenance
8/11/2014	R&R Air Cleaner (oil bath type) used 5w-30 oil. Old oil was brown and tan with water contamination. Joe Beringer	Tune Up	
8/11/2014	<ul> <li>approx date. Disassembled Rear Axles wheel of front truck. Some even wear on right front bushing was visible. Also the measurement between the spacer on the rear axle was about 1/4" under than on the front axle.</li> <li>Also discovered that on the real axle the lower part of the right bushings were reversed. Also there was only a small wad of packing in the lower part of each bearing. Reassembled rear axle and wheels of the front truck.</li> <li>Based on the advice from Dart Nielson, the bushings are doing OK. He recommended enough packing in the lower part to bring it well in contact with the axle, which Jack did on reassembling. Also the mismatched lower bushing parts were mated with the correct upper bushings. Jack Hattaway, Lew Matis</li> </ul>	Trucks	
8/11/2014	R&R Fuel Filter Carquest P/n 86032 (5/16" nipples) John Randall	Fuel	

date Entry		Category	Comments
8/11/2014	R and R air cleaner. Oil bath. Used 5w-30 oil. Old oil was brown, tan, with water contamination. Joe Beringer	Maintenance	
8/11/2014	RR Gel filter (Fuel Filter) Car Quest P/N86032 (5/16" nipples) John Randell	Fuel	
8/30/2014	Date uncertain. Disassembled rear axles and wheels of front truck. Some wear on right front bushing was visible. Also the measurement between the space on the rear axle was about 1/4"under that on the front axles. Also discovered that on the rear axle, the lower part of the left and right bushings were reversed. Also, there was only a small wad of packing in the lower part of each bearing. REASSEMBLED the rear axle and wheels of the front truck. Based on advice from Dart Nickerson, the bushings are doing okay. He recommended enough packing in the lower part to bring it well in contact with the axle, which Jack did on reassembly. Also, the miss matched lower bushing part were mated with the correct upper bushings. Jack Hattaway and Lew Matis	Trucks	
9/17/2014	Caulked roof seams on cab. Used a silicone caulk designed for roofs. Joe Becker	Body	
9/17/2014	Caulked roof seams on Cab. Used a silicone caulk designed for roofs. Joe Becker	Body	
9/17/2014	Re-attached trim on rear door. Used 8d finish nails driven in at opposite angles to secure the trim. Lew Matis	Body	
9/17/2014	Re-attached trim on rear door. Used 8d finishing nails driven at opposite angles to secure the trim. Lew Matis		