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**NATIONAL TRANSPORTATION SAFETY BOARD**  
**Office of Railroad, Pipeline and Hazardous Materials Investigations**  
**Washington, DC**

**MECHANICAL GROUP FACTUAL REPORT**

**DCA16FR005**

**Union Pacific Railroad Head-on Collision/Derailment with Injuries**  
**Granger, Wyoming**  
**March 14, 2016**

Factual Report Prepared by:  
J.A. Southworth

Date: March 18, 2016

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**Mechanical Group**

James A. Southworth  
Group Chairman/Railroad Accident Investigator/Investigator-In-Charge  
National Transportation Safety Board  
Office of Railroad, Pipeline and Hazardous Materials Investigations  
490 L'Enfant Plaza, S.W.  
Washington, DC 20594

Donald Jonuska  
Motive Power and Equipment  
Federal Railroad Administration—Region VIII  
Office of Safety  
2436 Hillside Drive  
Soda Springs, Idaho 83276

Scott Sloboth  
General Superintendent, Mechanical – Northern Region  
Union Pacific Railroad  
1400 Douglas Street, Stop 1080  
Omaha, Nebraska 68179—1080

1           **Accident**  
2  
3           NTSB Accident Number:     DCA16FR005  
4           Date of Accident:           March 14, 2016  
5           Time of Accident:           9:41 p.m. (MDT)  
6           Railroad Owner:            Union Pacific Railroad (UP)  
7           Train Operator:            UP (for both trains)  
8           Type of Train and No:       EB Local LCK41 of the 14th  
9           Crew Members:            1 Engineer, 1 Conductor, 1 Brakeman  
10          Type of Train and No:       WB KG1LAC of the 13th  
11          Crew Members:            1 Engineer, 1 Conductor  
12          Injuries:                 2  
13          Location of Accident:     Granger, WY

14  
15           **Summary**

16  
17           For a summary of the accident, refer to the *Accident Summary* report, within this docket.

18  
19           Parties to the investigation include the Federal Railroad Administration (FRA), Union  
20 Pacific Railroad (UP), Brotherhood of Locomotive Engineers and Trainmen (BLET), Sheet Metal  
21 and Rail Transportation (SMART) and Brotherhood of Maintenance of Way Employes  
22 (BMWED).



26  
27           Figure 1. This is an aerial view on March 15, 2016, looking south at the derailment area. The red downward arrow  
28 identifies the point of collision (impact); the yellow arrow shows the position and EB direction of travel of the stopped  
29 local train, LCK41; the blue arrow identifies the WB direction of travel of the striking train; the green upward arrow  
30 identifies the “as found” position of the locomotives. Note: the striking moved the stopped train about 118’ west.

1 **Circumstances Prior to the Accident**

2  
3 **Eastbound (EB) Train LCK41-14 (local train)**

4  
5 On Monday, March 14, 2016, a UP train crew, consisting of an locomotive engineer, a  
6 conductor, and a brakeman, reported for duty at 2:00 p.m. MDT at Kemmerer, Wyoming. The  
7 crew took charge of train LCK41-14 (LCK41). The train consisted of 2 locomotive and 45 loads  
8 of coal and no empty cars. The total train length was 2,430 feet and about 6,345 trailing tons.  
9 After completing a brake test and review of track bulletins, the crew departed eastbound.

10  
11 **Westbound (WB) Train KG1LAC-13 (intermodal freight train):**

12  
13 The KG1LAC-13, an intermodal freight train, with a UP train crew that consisted of an  
14 locomotive engineer and a conductor, reported for duty at Green River, WY at 7:30 p.m. MDT.  
15 The crew took charge of the train and departed westbound. The westbound train originated at  
16 Chicago, Illinois (Global 1 Yard) and was destined for Los Angeles, CA.

17  
18 The intermodal train consisted of 3 locomotives and 129 loads and no empty cars. The train  
19 was 9,104 feet in total length with 8,171 trailing tons.

20  
21 **Accident Narrative**

22  
23 **Train movement:**

24  
25 Both trains had no car restrictions and were authorized to operate at the maximum  
26 authorized track speed of 49 mph for movement on either main track in the vicinity of Granger  
27 and 30 mph on Granger siding.<sup>1</sup> The maximum authorized speed was reduced to 49 mph due to  
28 the suspension of the signal system. The Evanston Subdivision is predominantly a 70 mph territory  
29 between MP 817.3 and 993.6 with permanent speed restrictions listed in UP Timetable No. 5 for  
30 the Evanston Subdivision.

31  
32 Upon departing their respective crew reporting locations, both trains proceeded toward  
33 their destinations. As both trains arrived at the Granger siding area with the westbound train routed  
34 to take a “main 1 to main 1” route at the east end of “long siding”, according to the train dispatcher.  
35 Prior to the arrival of the intermodal train, train LCK41 had traveled the Pocatello Subdivision and  
36 entered the Granger siding at MP 844.1, at the west end of the siding. After entering the siding,  
37 the local was stopped and waiting for the westbound intermodal train to clear the east switch before  
38 moving eastward. The engineer of the local stopped the local train about 1,500’ west of the east  
39 clearance point at the east end before the intermodal was making its approach to the east end. As  
40 the westbound intermodal train proceeded into the OS (signal circuit) of CP 844, or the east end  
41 of Granger Siding, the train suddenly diverted from main track 1 into the Granger siding at about  
42 46 mph. A review of event recorder data indicated that the engineer placed the train into emergency  
43 immediately; however the westbound proceeded westward and collided with the standing local  
44 train in the Granger siding. Prior to the collision, the three crewmembers of the local departed the  
45 locomotive to safety. Both crewmembers of the intermodal train remained on board through the  
46 collision.

47  
48  

---

1 Grangersiding is 13,456’ long and locally is known as the “long siding.”

1 **Postaccident Investigation**

2

3 On this portion of the UP, the Evanston Subdivision consists of two main tracks between  
4 milepost 816.9 (Green River) and milepost 936.2. UP officials indicated they operate on average  
5 50 trains daily on the Evanston Subdivision in the Granger area.

6

7 According to UP documentation, the 2015 total combined freight tonnage traversing over  
8 main track 1 and 2 was 134 gross million tons (GMT).

9

10 **Point of Impact (POI):**

11

12 Investigators observed and photographed an area where locomotive debris from  
13 locomotives was present in the gage of the siding. Investigators formed a consensus that this  
14 location indicated the point of impact (POI). Investigators also determined that the POI was at MP  
15 844.5, which is about 1500' west of the entrance to the east end of the siding.

16



17

18 **Figure 2.** This is a view looking east the derailed KGILAC-13 intermodal train derailed cars.

19

20



1  
2 **Figure 3.** Collision/impact of lead locomotives. The intermodal train lead locomotive is shown below the  
3 red arrow indicating the eastbound direction of travel. The lead locomotive for the coal train is shown below  
4 the green arrow indicating the westbound direction of travel.  
5  
6

### 7 **Post Accident Mechanical Inspection/Testing of Railcars:**

8

9 On March 15 and 16, 2016, the mechanical group inspected and air brake tested the  
10 equipment on LCK41-14. On March 17, 2016 the equipment on KG1LAC-13 was inspected and  
11 airbrake tested. There was one locomotive and one car found defective on KG1LAC-13 and 34  
12 cars found defective on the LCK41-14.  
13

14 None of the defects discovered were causal concerning this accident.  
15

16 The defects on KG1LAC-13 included the following:  
17

- 18 • UP 8456 (Trailing locomotive) Front left inboard vertical handhold bent
  - 19 • SMW 210423; Handbrake wheel loose on shaft
- 20

21 The defects on LCK41-14 included:  
22

- 23 • Five cars with brakes that did not function properly during an air test.
  - 24 • Eighteen cars missing air brake valve internal vent protector diaphragms.
  - 25 • One car missing an air brake valve external vent protector.
  - 26 • Sixteen cars with worn out, broken or missing brake shoes.
  - 27 • Thirteen cars with broken or loose brake steps and end platforms.
  - 28 • One car with a loose handbrake wheel.
  - 29 • Four cars with cracked air lines.
- 30  
31

1           **Inspection Records**

2  
3           Photographic and electronic stored records of inspections and tests are pending a final  
4 write-up after the review. Although not contributory to the accident, as part of the on-going  
5 accident investigation and documentation of the inspected railcars and air brake tests, a qualified  
6 FRA motive power and equipment inspector will conduct an additional inspection of UP’s records  
7 to determine compliance FRA regulations.  
8  
9

10           **Parties to the Investigation - Acknowledgment Signatures**

11  
12          The undersigned designated *Party to the Investigation* representatives attest that the information  
13 contained in this preliminary factual report is a factually accurate representation of the information  
14 collected during the investigation, to the extent of their best knowledge and contribution in this  
15 investigation.  
16  
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18 \_\_\_\_\_

19  
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21  
22 //s//

23 \_\_\_\_\_ Date \_\_\_\_\_  
24 James Southworth, NTSB

25  
26  
27 //s//

28 \_\_\_\_\_ Date \_\_\_\_\_  
29 Donald Jonuska, FRA

30  
31  
32 //s//

33 \_\_\_\_\_ Date \_\_\_\_\_  
34 Scott Sloboth, UP

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# ATTACHMENT – Blue cards, daily inspections, air slips

3

## Blue Cards, Daily Inspections, Air Slip-KGILAC-13

UNION PACIFIC RAILROAD FORM 25023 (Rev. 2-93)  
 UP CCS/SC AND/OR C&NW ATC DEPARTURE TEST

Engine No. UP 5718 Date 3-13-16  
 Station C0003 Time 0001

---

UPRR CCS/SC Tested  
0718718 CUT-OUT SEAL NO. [REDACTED]

---

C&NW ATC Tested  
0718357 MAG VALVE CUT-OUT SEAL NO. [REDACTED]

Your signature certifies test(s) were performed and results were satisfactory

FORM 25021 (Rev. 07-05)  
 UNION PACIFIC RAILROAD  
 AIR BRAKE TEST NOTIFICATION  
 2-WAY EOT ARMING NOTIFICATION

Class I Brake Test - Initial Terminal Inspection has been performed on the train identified below, as prescribed in CFR 232.205.

LOCATION GLOBAL-1 DATE & TIME 01:00 AM 03-13-2016  
 TRAIN KGILAC-13 No. of CARS 129  
 ENGINE NUMBERS: UP-5718

---

QUALIFIED PERSON (S) PARTICIPATING IN AIR BRAKE TEST P. Hartford / M. Aguilar  
 DATE & TIME 03-13-2016  
 CERTIFYING EOT WAS ARMED AND WORKING G. LAQUIRRE

FRONT END DEVICE # COMPUTER  
 REAR END DEVICE # UP-8913 ATX MODEL  YES  NO  
 % OF BATTERY LEFT 100%  
 REAR CAR/CAB NO. 560069

BRAKE PIPE LEAKAGE 1.5 PSI  
 AIR FLOW 5100 CFM  
 TIME AIR TEST COMPLETED 5:00 AM  PM  
 EXTENDED HAUL TRAIN (per CFR 232.213)  YES  NO

ORIGINAL - Place in blue card holder. Federal law requires this certificate remain on lead locomotive until final destination.  
 COPY - Local File. Must be retained for one year.

FORM 25021 (Rev. 07-05)  
 UNION PACIFIC RAILROAD  
 AIR BRAKE TEST NOTIFICATION  
 2-WAY EOT ARMING NOTIFICATION

Class I Brake Test - Initial Terminal Inspection has been performed on the train identified below, as prescribed in CFR 232.205.

LOCATION NCP WM DATE & TIME 3-13-16 2:50 AM  
 TRAIN 261LAC-13 No. of CARS 129  
 ENGINE NUMBERS: UP 5718

---

QUALIFIED PERSON (S) PARTICIPATING IN AIR BRAKE TEST C. Morgan D. Coakman  
 DATE & TIME \_\_\_\_\_

FRONT END DEVICE # UP 5718  
 REAR END DEVICE # PP 8913 ATX MODEL  YES  NO  
 % OF BATTERY LEFT \_\_\_\_\_  
 REAR CAR/CAB NO. DTTX 560069

BRAKE PIPE LEAKAGE \_\_\_\_\_ PSI  
 AIR FLOW 0 CFM  
 TIME AIR TEST COMPLETED 3:20 AM  PM  
 EXTENDED HAUL TRAIN (per CFR 232.213) 1600  YES  NO

ORIGINAL - Place in blue card holder. Federal law requires this certificate remain on lead locomotive until final destination.  
 COPY - Local File. Must be retained for one year.

4



<<<<< USE THIS FORM FOR THE SECOND MONTH>>>>>

MONTH March 2016 UNIT NO. UP5718

LOCATION	DATE	TIME	OK	N/C	QUAL M.I.	FULL SIGNATURE
AP482	03-01	0130	✓			
AY141	02	400	✓			
X6077	3	0200	X		X	
Camden AK	4	0615	✓			
SP018	5	10:10	✓			
CX809	8	0100	✓		✓	
BRLOW	9	0140	X			
NX284	10	1820	✓		✓	
CO003	12	500	✓		✓	
CO003	13	0001	✓		✓	
WX683	14	1645	✓		✓	

COMPUTER GENERATED FORM FRA F6180-49 A

UP 5718

BLUECARD

UP 5718

U.S. DEPARTMENT OF TRANSPORTATION		UNION PACIFIC RAILROAD LOCOMOTIVE INSPECTION AND REPAIR RECORD				
FEDERAL RAILROAD ADMINISTRATION		In accordance with the Locomotive Inspection Act, 36 State, 913, as amended and the regulations issued pursuant to that Act, the parts and appurtenances of the locomotive unit have been inspected and all defects disclosed by the inspection have been properly repaired.				
REPORTING YEAR :2016		IS LOCO NEW: No		IF RENUMBERED/PREV.INIT&NO:		
1. OPERATED BY: UNION PACIFIC RAILROAD RRCCode: UP			2. OWNED BY (Railroad): Union Pacific Railroad Company RRCCode: UP			
3. MODEL NO: C44ACCTE	4. LOCO INIT/NO : UP 5718	5. YR. BUILT: 2001	6. PROPELLED BY: D-E	7. HORSEPOWER: 4390	8. TYPE OF SERVICE: FREIGHT	
9. STEAM GEN.	GEN. #1: N/A WORKING PRESSURE:			GEN. #2: N/A WORKING PRESSURE:		
10. MAXIMUM PISTON TRAVEL: 8 inches		TYPE OF AIR BRAKE: EPIC2		AIR DRYER EQUIPPED: YES		
11. OUT OF USE CREDIT: 0		12. LAST PERIODIC INSPECTION DATE : 09/08/2015 PLACE: NORTH PLATTE GE WYD, NE				
AFM CAL. 229.29(b)	91 day max. interval	Previous Date: 12/09/2015	Date & Cert: 03/07/2016 L J GONZALEZ	Date & Cert:	Date & Cert:	Date & Cert:
PERIODIC INSPECTIONS		CHECK ONE:		<input type="checkbox"/> 92 DAYS PER 229.23(a).		
				<input checked="" type="checkbox"/> 184 DAYS PER 229.23(b)(1) ONLY.		
13. DATE	14. PLACE	15. ITEMS *	16. PERSON CONDUCTING	15. ITEMS *	16. PERSON CONDUCTING	17. CERTIFIED BY
O/S FROM: 03/07/2016 TO: 03/07/2016						
03/07/2016	LOS ANGELES, CA	8	A M ZAW			L J GONZALEZ
O/S FROM: 03/06/2016 TO: 03/07/2016						
03/07/2016	LOS ANGELES, CA	1-4 & 7	N E KIRBY	5	E TODD	L J GONZALEZ
* 15. ITEM CODE: [1] BRAKES [2] RUNNING GEAR [3] CAB EQUIP [4] MECH. EQUIP [5] ELECT. EQUIP [6] STEAM GEN. [7] SAFETY APPL. [8] EVENT RECORDER						
TESTS	18. H&H TEST PRESSURE DRILLED	19. WAIVER PART - 229: WAIVER FRA-2001-11014, WAIVER FRA-2004-17308, WAIVER FRA-2005-21179, WAIVER FRA-2005-21613, WAIVER FRA-2014-0085			20. WAIVER - OTHER:	
TYPE / INTERVAL NOT MORE THAN		21. PERSON CONDUCTING	22. TEST DATE AND PLACE	23. CERTIFIED BY	24. PREVIOUS TEST DATE AND PLACE	
HAND BRAKE 232.105(c)/368 days		A C DAVILA	03/07/2016 LOS ANGELES, CA	L J GONZALEZ	03/13/2015 WEST COLTON DSL, CA	
ANNUAL TESTS 229.27/368 days		NA	NA	NA	NA	
L1 229.29(C1)(A1) (1) FILTERS ONLY/368 days		A C DAVILA	03/07/2016 LOS ANGELES, CA	L J GONZALEZ	03/13/2015 WEST COLTON DSL, CA	
L2&L3 229.29(C2/C3)(EPIC2)/2944 days					04/05/2013 DENVER DIESEL, CO	
EVENT RECORDER 229.25(d) or 229.27(c)/368 days		SEE COLUMN 15 ABOVE			03/13/2015 WEST COLTON DSL, CA	

06-06-2016

REMARKS: CARRIERS ENTER ANY OTHER CLARIFYING OR EXPLANATORY INFORMATION.  
 DO NOT USE AFTER: 06/06/2016  
 EVENT RECORDER EQUIPPED: PULSE TTX-REC-M6W GE INT ALT  
 MAIN RESERVOIR SAFETY VALVE SET FOR 150 PSI

Continued on page 2

DATE	TIME	DESCRIPTION	OPERATOR	STATUS
06/06/2016	14:30	Normal operation	J. Smith	OK
06/06/2016	15:15	Pressure fluctuation	J. Smith	Warning
06/06/2016	16:00	System shutdown	J. Smith	Failure
06/06/2016	17:30	Restart attempt	J. Smith	Warning
06/06/2016	18:45	System stable	J. Smith	OK
06/06/2016	19:30	End of shift	J. Smith	OK

02-02-2016

**UP 5718**

**BLUECARD**

**UP 5718**

WAIVER DETAILS :

WAIVER FRA-2001-11014  
ELECTRONIC DAILY INSPECTION.

WAIVER FRA-2004-17308  
ELECTRONIC BLUE CARD.

WAIVER FRA-2005-21179  
MAIN RESERVOIR SAFETY VALVE SET FOR 150 PSI.IF AFM EQUIPPED, AFM SET AT 64 CFM FOR 120-130 PSI OR 60 CFM FOR 130-140 PSI.

WAIVER FRA-2005-21613  
ELECTRONIC AIR BRAKE TESTING FOR EXTENSION OF COTS INTERVAL.

WAIVER FRA-2014-0085  
RELIEF FROM REQUIREMENT TO PERFORM TEST PRESCRIBED BY CFR 236.586 ON MICROPROCESSOR BASED AUTOMATIC CAB SIGNAL,  
TRAIN STOP AND TRAIN CONTROL SYSTEMS.

---

**Certification of true copy.**

**I certify that this is a true copy of the inspection and repair record of locomotive no. UP 5718**

*ATTENTION: A false entry on this form is punishable by fine or imprisonment (U.S. Code. Title 18. Sec. 1001).*

03/07/2016

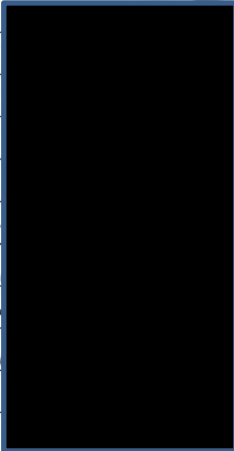
*(Officer-in-charge)*

**DATE**

**FORM FRA F6180-49 A (11/2012) .**

<<<<< USE THIS FORM FOR THE FIFTH MONTH>>>>>

MONTH March 2016 UNIT NO. LP5380

LOCATION	DATE	TIME	OK	N/C	QUAL M.I.	FULL SIGNATURE	
IY201	1	2058			✓		
WX284	3	0300	✓				
WX683	4	05:15	✓				
CX236	5	02:00	✓				
Sp760	6	1145	✓				
CX809	8	0100	✓		✓		
Bm32w	9	0140	✓				
NX284	10	1820	✓		✓		
C0003	12	500	✓		✓		
C0003	13	0001	✓		✓		
WX683	14	1640	✓				

COMPUTER GENERATED FORM FRA F6180-49 A

UP 5580

BLUECARD

UP 5580

U.S DEPARTMENT OF TRANSPORTATION		UNION PACIFIC RAILROAD LOCOMOTIVE INSPECTION AND REPAIR RECORD					
FEDERAL RAILROAD ADMINISTRATION		In accordance with the Locomotive Inspection Act, 36 State, 913, as amended and the regulations issued pursuant to that Act, the parts and appurtenances of the locomotive unit have been inspected and all defects disclosed by the inspection have been properly repaired.					
REPORTING YEAR :2016		IS LOCO.NEW: No			IF RENUMBERED/PREV.INIT&NO:		
1. OPERATED BY: UNION PACIFIC RAILROAD RRCCode: UP				2. OWNED BY (Railroad) :Union Pacific Railroad Company RRCCode: UP			
3. MODEL NO: GE C44ACCTE	4. LOCO INIT/NO : UP 5580	5. YR. BUILT: 2004	6. PROPELLED BY: D-E	7. HORSEPOWER: 4390	8. TYPE OF SERVICE: FREIGHT		
9. STEAM GEN.		GEN. #1: N/A WORKING PRESSURE:			GEN. #2: N/A WORKING PRESSURE:		
10. MAXIMUM PISTON TRAVEL:8 inches		TYPE OF AIR BRAKE: EPIC2		AIR DRYER EQUIPPED: YES			
11. OUT OF USE CREDIT: 0		12. LAST PERIODIC INSPECTION DATE : 07/30/2015 PLACE: NLRK SERVICE TRK, AR					
AFM CAL. 229.29(b)	91 day max. interval	Previous Date: 10/26/2015	Date & Cert: 01/20/2016 J L ENLOE	Date & Cert:	Date & Cert:	Date & Cert:	
PERIODIC INSPECTIONS		CHECK ONE:		<input type="checkbox"/> 92 DAYS PER 229.23(a).		<input checked="" type="checkbox"/> 184 DAYS PER 229.23(b)(1)ONLY.	
13. DATE	14. PLACE	15. ITEMS *	16. PERSON CONDUCTING	15. ITEMS *	16. PERSON CONDUCTING	17. CERTIFIED BY	
O/S FROM: 01/20/2016 TO: 01/20/2016							
01/20/2016	PINE BLUFF SHOPS, AR	1-4 & 7	D M WOOLLEY	5	T J MURRAY	J L ENLOE	
* 15. ITEM CODE: [1] BRAKES [2] RUNNING GEAR [3] CAB EQUIP [4] MECH. EQUIP [5] ELECT. EQUIP [6] STEAM GEN. [7] SAFETY APPL. [8] EVENT RECORDER							
TESTS		18. H&H TEST PRESSURE DRILLED	19. WAIVER PART - 229: WAIVER FRA-2014-0085		20. WAIVER - OTHER:		
TYPE / INTERVAL NOT MORE THAN		21. PERSON CONDUCTING	22. TEST DATE AND PLACE	23. CERTIFIED BY	24. PREVIOUS TEST DATE AND PLACE		
HAND BRAKE 232.105(c)/368 days					07/30/2015 NLRK SERVICE TRK, AR		
ANNUAL TESTS 229.27/368 days		NA	NA	NA	NA		
L1 229.29(C1)(A1) (1) FILTERS ONLY/368 days					07/30/2015 NLRK SERVICE TRK, AR		
L2&L3 229.29(C2/C3)(EPIC2)/2944 days					09/09/2009 ROSEVILLE, CA		
EVENT RECORDER 229.25(d) or 229.27(c)/368 days		SEE COLUMN 15 ABOVE			07/30/2015 NLRK SERVICE TRK, AR		

REMARKS: CARRIERS ENTER ANY OTHER CLARIFYING OR EXPLANATORY INFORMATION.  
 DO NOT USE AFTER: 04/20/2016  
 EVENT RECORDER EQUIPPED: PULSE TTX-REC-M6W GE INT ALT  
 MAIN RESERVOIR SAFETY VALVE SET FOR 150 PSI

Continued on page 2

04/20/2016

UP 5580

BLUECARD

UP 5580

WAIVER DETAILS:

WAIVER FRA-2014-0085  
RELIEF FROM REQUIREMENT TO PERFORM TEST PRESCRIBED BY CFR 236.586 ON MICROPROCESSOR BASED AUTOMATIC CAB SIGNAL,  
TRAIN STOP AND TRAIN CONTROL SYSTEMS.

Certification of true copy.

I certify that this is a true copy of the inspection and repair record of locomotive no. UP 5580

ATTENTION: A false entry on this form is punishable by fine or imprisonment (U.S. Code, Title 18, Sec. 1001).

01/20/2016

(Officer-in-charge)

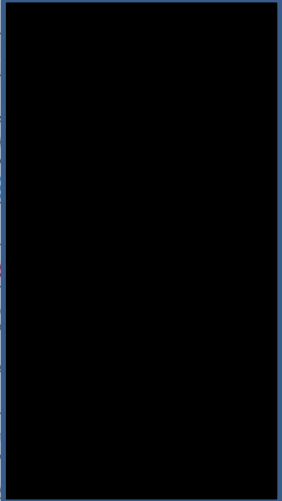
DATE

FORM FRA F6180-49 A (11/2012)

01/20/2016

<<<<< USE THIS FORM FOR THE SEVENTH MONTH>>>>>

MONTH March 2016 UNIT NO. UP4269

LOCATION	DATE	TIME	OK	N/C	QUAL M.I.	FULL SIGNATURE
C4650	3-1	02:30	✓			
NOP	2	1630	✓			
G0003	3	1450	✓			
C0003	4	300	✓		✓	
NX284	5	0525	✓		✓	
F404	6	0550	✓			
OZ686	7	1300	X		X	
OY591	8	1355	X			
F1061	9	0930	✓			
N2044	03/10	1250	✓			
C0003	13	1004	✓		✓	
WX683	14	1640	✓			



COMPUTER GENERATED FORM FRA F6180-49 A

UP 4269

BLUECARD

UP 4269

U.S DEPARTMENT OF TRANSPORTATION		UNION PACIFIC RAILROAD LOCOMOTIVE INSPECTION AND REPAIR RECORD				
FEDERAL RAILROAD ADMINISTRATION		In accordance with the Locomotive Inspection Act, 36 State, 913, as amended and the regulations issued pursuant to that Act, the parts and appurtenances of the locomotive unit have been inspected and all defects disclosed by the inspection have been properly repaired.				
REPORTING YEAR :2016		IS LOCO.NEW: No		IF RENUMBERED/PREV.INIT&NO:		
1. OPERATED BY: UNION PACIFIC RAILROAD RRCCode: UP			2. OWNED BY (Railroad) :Union Pacific Railroad Company RRCCode: UP			
3. MODEL NO: SD70M	4. LOCO INIT/NO : UP 4269	5. YR. BUILT: 2000	6. PROPELLED BY: D-E	7. HORSEPOWER: 4000	8. TYPE OF SERVICE: FREIGHT	
9. STEAM GEN.		GEN. #1: N/A WORKING PRESSURE:		GEN. #2: N/A WORKING PRESSURE:		
10. MAXIMUM PISTON TRAVEL:8 inches		TYPE OF AIR BRAKE: 30CDW		AIR DRYER EQUIPPED: YES		
11. OUT OF USE CREDIT: 49		12. LAST PERIODIC INSPECTION DATE : 09/30/2015 PLACE: PROVISO, IL				
AFM CAL. 229.29(b)	91 day max. interval	Previous Date: 09/30/2015	Date & Cert: 01/05/2016 D S RHODES JR.	Date & Cert:	Date & Cert:	Date & Cert:
PERIODIC INSPECTIONS		CHECK ONE:		<input checked="" type="checkbox"/> 92 DAYS PER 229.23(a).		<input type="checkbox"/> 184 DAYS PER 229.23(b)(1)ONLY.
13. DATE	14. PLACE	15. ITEMS *	16. PERSON CONDUCTING	15. ITEMS *	16. PERSON CONDUCTING	17. CERTIFIED BY
O/S FROM: 01/05/2016 TO: 01/05/2016						
01/05/2016	FT WORTH, TX	1-4 & 7	J R DAY	5	J L GUADARRAMA	D S RHODES JR.
* 15. ITEM CODE: [1] BRAKES [2] RUNNING GEAR [3] CAB EQUIP [4] MECH. EQUIP [5] ELECT. EQUIP [6] STEAM GEN. [7] SAFETY APPL. [8] EVENT RECORDER						
TESTS		18. H&H TEST PRESSURE DRILLED		19. WAIVER PART - 229: WAIVER FRA-2014-0085		20. WAIVER - OTHER:
TYPE / INTERVAL NOT MORE THAN		21. PERSON CONDUCTING		22. TEST DATE AND PLACE		23. CERTIFIED BY
HAND BRAKE 232.105(c)/368 days						07/12/2015 N LITTLE ROCK RAMP, AR
ANNUAL TESTS 229.27/368 days						07/12/2015 N LITTLE ROCK RAMP, AR
L1 229.29(C1)(A1) (1) FILTERS ONLY/368 days						07/12/2015 N LITTLE ROCK RAMP, AR
L2&L3 229.29(C2/C3)(30CDW)/1472 days						06/03/2012 N LITTLE ROCK RAMP, AR
EVENT RECORDER 229.25(d) or 229.27(c)/368 days		SEE COLUMN 15 ABOVE				07/12/2015 N LITTLE ROCK RAMP, AR

REMARKS: CARRIERS ENTER ANY OTHER CLARIFYING OR EXPLANATORY INFORMATION.  
DO NOT USE AFTER: 04/05/2016  
EVENT RECORDER EQUIPPED: PULSE TTX REC-13  
MAIN RESERVOIR SAFETY VALVE SET FOR 150 PSI

Continued on page 2

4/5/16

UP 4269

BLUECARD

UP 4269

WAIVER DETAILS :

WAIVER FRA-2014-0085  
RELIEF FROM REQUIREMENT TO PERFORM TEST PRESCRIBED BY CFR 236.586 ON MICROPROCESSOR BASED AUTOMATIC CAB SIGNAL,  
TRAIN STOP AND TRAIN CONTROL SYSTEMS.

OUT OF SERVICE DETAILS :

OUT OF SERVICE 06/03/2012 TO 07/21/2012 49 DAYS AT N LITTLE ROCK RAMP, AR OS

**Certification of true copy.**

**I certify that this is a true copy of the inspection and repair record of locomotive no. UP 4269**

*ATTENTION: A false entry on this form is punishable by fine or imprisonment (U.S. Code, Title 18, Sec. 1001).*

01/06/2016

(Officer-in-charge)

DATE

FORM FRA F6180-49 A (11/2012) .

Handwritten signature and date: 01/06/16

1  
2

Blue Cards, Daily Inspections, Air Slip- LCK41-14

UNION PACIFIC RAILROAD  
UP CCS/SC AND/OR C&NW ATC DEPARTURE TEST

FORM 25023 (REV. 2-93)

Engine No. UP 5155 Date 3-14-16  
Station IX887 Time 1910

UPRR CCS/SC Tested  
0753996 CUT-OUT SEAL NO. 0408177 Signed

C&NW ATC Tested  
MAG VALVE CUT-OUT SEAL NO. \_\_\_\_\_ Signed \_\_\_\_\_

Your signature certifies test(s) were performed and results were satisfactory

FORM 25021 (Rev. 07-05)  
UNION PACIFIC RAILROAD  
AIR BRAKE TEST NOTIFICATION  
2-WAY EOT ARMING NOTIFICATION

Class I Brake Test-Initial Terminal Inspection has been performed on the train identified below, as prescribed in CFR 232.205.

LOCATION 022750 J1904 DATE & TIME 03-14-16 / 17:30  
TRAIN LEK41-14 No. of CARS 45  
ENGINE NUMBERS: 5155, 3780

QUALIFIED PERSON(S)  
PARTICIPATING IN AIR BRAKE TEST Smith xt, Shidky

QUALIFIED PERSON CERTIFYING EOT WAS ARMED AND WORKING Smith xt DATE & TIME 03-14 / 17:30

FRONT END DEVICE # \_\_\_\_\_ REAR END DEVICE # 63646 ATX MODEL  YES  NO

% OF BATTERY LEFT \_\_\_\_\_ REAR CAR/CAB NO. TILX 49210

BRAKE PIPE LEAKAGE \_\_\_\_\_ PSI AIR FLOW -20 CFM

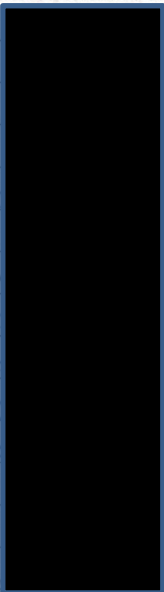
TIME AIR TEST COMPLETED \_\_\_\_\_ AM 18:05 PM \_\_\_\_\_ YES  NO

EXTENDED HAUL TRAIN (per CFR 232.213) \_\_\_\_\_ YES \_\_\_\_\_ NO

ORIGINAL-Place in blue card holder. Federal law requires this certificate remain on lead locomotive until final destination.  
COPY-Local File. Must be retained for one year.

<<<<< USE THIS FORM FOR THE THIRD MONTH >>>>>

MONTH March UNIT NO. 405155

LOCATION	DATE	TIME	OK	N/C	QUAL M.I.	FULL SIGNATURE
WX888	1	0815	✓			
TX887	2	0730	✓			
WX888	3	0815	✓			
TX887	4	0710	✓			
TX887	5	0700	✓			
IJ904	7	1500	X			
TX887	8	0720	✓			
TX887	9	0725	✓			
TX887	10	0710	✓			
TX887	11	0700	✓			
TX887	12	0715	✓			
IJ904	14	1730	X			

COMPUTER GENERATED FORM FRA F6180-49 A

UP 5155

BLUECARD

UP 5155

U.S. DEPARTMENT OF TRANSPORTATION		UNION PACIFIC RAILROAD LOCOMOTIVE INSPECTION AND REPAIR RECORD				
FEDERAL RAILROAD ADMINISTRATION		In accordance with the Locomotive Inspection Act, 36 State, 913, as amended and the regulations issued pursuant to that Act, the parts and appurtenances of the locomotive unit have been inspected and all defects disclosed by the inspection have been properly repaired.				
REPORTING YEAR :2016		IS LOCO NEW: No		IF RENUMBERED/PREV INIT&NO:		
1. OPERATED BY: UNION PACIFIC RAILROAD RRCCode: UP			2. OWNED BY (Railroad): Union Pacific Railroad Company RRCCode: UP			
3. MODEL NO: SD70M	4. LOCO INIT/NO : UP 5155	5. YR. BUILT: 2004	6. PROPELLED BY: D-E	7. HORSEPOWER: 4000	8. TYPE OF SERVICE: FREIGHT	
9. STEAM GEN.		GEN. #1: N/A WORKING PRESSURE:		GEN. #2: N/A WORKING PRESSURE:		
10. MAXIMUM PISTON TRAVEL: 8 inches		TYPE OF AIR BRAKE: 30CDW		AIR DRYER EQUIPPED: YES		
11. OUT OF USE CREDIT: 0		12. LAST PERIODIC INSPECTION DATE : 10/20/2015 PLACE: GLOBAL 4, IL				
AFM CAL. 229.29(b)	91 day max. interval	Previous Date: 10/20/2015	Date & Cert: 01/16/2016 T A SCHWARTZ	Date & Cert:	Date & Cert:	Date & Cert:
PERIODIC INSPECTIONS		CHECK ONE:		<input checked="" type="checkbox"/> 92 DAYS PER 229.23(a).		<input type="checkbox"/> 184 DAYS PER 229.23(b)(1) ONLY.
13. DATE	14. PLACE	15. ITEMS *	16. PERSON CONDUCTING	15. ITEMS *	16. PERSON CONDUCTING	17. CERTIFIED BY
O/S FROM: 01/16/2016 TO: 01/16/2016						
01/16/2016	NPLATTE SERVICE TK, NE	1-4 & 7	S E EFFENBECK	5	G R KORTE	T A SCHWARTZ
* 15. ITEM CODE: [1] BRAKES [2] RUNNING GEAR [3] CAB EQUIP [4] MECH. EQUIP [5] ELECT. EQUIP [6] STEAM GEN. [7] SAFETY APPL. [8] EVENT RECORDER						
TESTS		18. H&H TEST PRESSURE DRILLED		19. WAIVER PART - 229: WAIVER FRA-2001-11014 , WAIVER FRA-2004-17308 , WAIVER FRA-2005-21179 , WAIVER FRA-2014-0085		20. WAIVER - OTHER:
TYPE / INTERVAL NOT MORE THAN		21. PERSON CONDUCTING	22. TEST DATE AND PLACE	23. CERTIFIED BY	24. PREVIOUS TEST DATE AND PLACE	
HAND BRAKE 232.105(c)/368 days					08/01/2015 YARD CENTER, IL	
ANNUAL TESTS 229.27/368 days					08/01/2015 YARD CENTER, IL	
L1 229.29(C1)(A1) (1) FILTERS ONLY/368 days					08/01/2015 YARD CENTER, IL	
L2&L3 229.29(C2/C3)(30CDW)/1472 days					04/20/2013 N LITTLE ROCK RAMP, AR	
EVENT RECORDER 229.25(d) or 229.27(c)/368 days		SEE COLUMN 15 ABOVE			08/01/2015 YARD CENTER, IL	

REMARKS: CARRIERS ENTER ANY OTHER CLARIFYING OR EXPLANATORY INFORMATION.  
DO NOT USE AFTER: 04/16/2016  
EVENT RECORDER EQUIPPED: BACH-SIMPSON CHM  
MAIN RESERVOIR SAFETY VALVE SET FOR 150 PSI

Continued on page 2

4-16-16

UP 5155

BLUECARD

UP 5155

WAIVER DETAILS:

WAIVER FRA-2001-11014  
ELECTRONIC DAILY INSPECTION.

WAIVER FRA-2004-17308  
ELECTRONIC BLUE CARD.

WAIVER FRA-2005-21179  
MAIN RESERVOIR SAFETY VALVE SET FOR 150 PSI. IF AFM EQUIPPED, AFM SET AT 64 CFM FOR 120-130 PSI OR 60 CFM FOR 130-140 PSI.

WAIVER FRA-2014-0085  
RELIEF FROM REQUIREMENT TO PERFORM TEST PRESCRIBED BY CFR 236.586 ON MICROPROCESSOR BASED AUTOMATIC CAB SIGNAL, TRAIN STOP AND TRAIN CONTROL SYSTEMS.

**Certification of true copy.**

**I certify that this is a true copy of the inspection and repair record of locomotive no. UP 5155**

*ATTENTION: A false entry on this form is punishable by fine or imprisonment (U.S. Code, Title 18, Sec. 1001).*

01/17/2016

(Officer-in-charge)

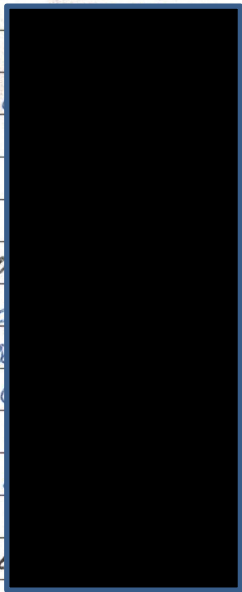
DATE

FORM FRA F6180-49 A (11/2012) .



<<<<< USE THIS FORM FOR THE SIXTH MONTH>>>>>

MONTH March UNIT NO. 4P3780

LOCATION	DATE	TIME	OK	N/C	QUAL M.I.	FULL SIGNATURE	
WX838	1	0845	✓				
TX887	2	0730	✓				
WX838	3	0815	✓				
TX887	4	0710	✓				
TX887	5	0700	✓				
JJ904	7	1500	X				
TX887	8	0720	✓				
TX887	9	0735	✓				
TX887	10	0710	✓				
TX887	11	0705	✓				
TX887	12	0715	✓				
JJ904	14	1730	X				



COMPUTER GENERATED FORM FRA F6180-49 A

UP 3780

BLUECARD

UP 3780

U.S. DEPARTMENT OF TRANSPORTATION		UNION PACIFIC RAILROAD LOCOMOTIVE INSPECTION AND REPAIR RECORD				
FEDERAL RAILROAD ADMINISTRATION		In accordance with the Locomotive Inspection Act, 36 State, 913, as amended and the regulations issued pursuant to that Act, the parts and appurtenances of the locomotive unit have been inspected and all defects disclosed by the inspection have been properly repaired.				
REPORTING YEAR : 2015		IS LOCO NEW: No		IF RENUMBERED/PREV INIT&NO:		
1. OPERATED BY: UNION PACIFIC RAILROAD RRCODE: UP			2. OWNED BY (Railroad): Union Pacific Railroad Company RRCODE: UP			
3. MODEL NO: SD70M	4. LOCO INIT/NO: UP 3780	5. YR. BUILT: 2004	6. PROPELLED BY: D-E	7. HORSEPOWER: 4000	8. TYPE OF SERVICE: FREIGHT	
9. STEAM GEN. GEN. #1: N/A WORKING PRESSURE:		GEN. #2: N/A WORKING PRESSURE:				
10. MAXIMUM PISTON TRAVEL: 8 inches		TYPE OF AIR BRAKE: 30CDW		AIR DRYER EQUIPPED: YES		
11. OUT OF USE CREDIT: 118		12. LAST PERIODIC INSPECTION DATE: 11/19/2014 PLACE: NLRK SERVICE TRK, AR				
AFM CAL. 229.29(b)	91 day max. interval	Previous Date: 11/18/2014	Date & Cert: 02/15/2015 R DUARTE	Date & Cert: 04/04/2015 M P ZUNIGA	Date & Cert: 07/03/2015 J A KLAFKA	Date & Cert: 10/01/2015 T J GOFF
PERIODIC INSPECTIONS		CHECK ONE:		<input checked="" type="checkbox"/> 92 DAYS PER 229.23(a).		<input type="checkbox"/> 184 DAYS PER 229.23(b)(1) ONLY.
13. DATE	14. PLACE	15. ITEMS *	16. PERSON CONDUCTING	15. ITEMS *	16. PERSON CONDUCTING	17. CERTIFIED BY
O/S FROM: 04/01/2015 TO: 04/04/2015						
04/04/2015	HINKLE, OR	1-4 & 7	M L COLE	5	L T JOHNSON	M P ZUNIGA
O/S FROM: 07/03/2015 TO: 07/03/2015						
07/03/2015	HOUSTON SERVICE TK, TX	1-4 & 7	J HESSONG	5	S D GALLANT	J A KLAFKA
O/S FROM: 09/30/2015 TO: 10/01/2015						
10/01/2015	NPLATTE SERVICE TK, NE	1-4 & 7	S C DEMILT	5	D G NEAL	T J GOFF
O/S FROM: 10/01/2015 TO: 10/01/2015						
10/01/2015	NPLATTE SERVICE TK, NE	8	D G NEAL			K R NELSEN
* 15. ITEM CODE: [1] BRAKES [2] RUNNING GEAR [3] CAB EQUIP [4] MECH. EQUIP [5] ELECT. EQUIP [6] STEAM GEN. [7] SAFETY APPL. [8] EVENT RECORDER						
TESTS		18. H&H TEST PRESSURE DRILLED		19. WAIVER PART - 229: WAIVER FRA-2001-11014, WAIVER FRA-2004-17308, WAIVER FRA-2005-21179, WAIVER FRA-2014-0085		20. WAIVER - OTHER:

4-1

UP 3780

BLUECARD

UP 3780

REMARKS: CARRIERS ENTER ANY OTHER CLARIFYING OR EXPLANATORY INFORMATION.

DO NOT USE AFTER: 04/01/2016

EVENT RECORDER EQUIPPED: PULSE TTX-REC-M6W

MAIN RESERVOIR SAFETY VALVE SET FOR 150 PSI

WAIVER DETAILS:

WAIVER FRA-2001-11014

ELECTRONIC DAILY INSPECTION.

WAIVER FRA-2004-17308

ELECTRONIC BLUE CARD.

WAIVER FRA-2005-21179

MAIN RESERVOIR SAFETY VALVE SET FOR 150 PSI.IF AFM EQUIPPED, AFM SET AT 64 CFM FOR 120-130 PSI OR 60 CFM FOR 130-140 PSI.

WAIVER FRA-2014-0085

RELIEF FROM REQUIREMENT TO PERFORM TEST PRESCRIBED BY CFR 236.586 ON MICROPROCESSOR BASED AUTOMATIC CAB SIGNAL, TRAIN STOP AND TRAIN CONTROL SYSTEMS.

OUT OF SERVICE DETAILS:

OUT OF SERVICE 11/27/2014 TO 01/11/2015 46 DAYS AT MANKATO, MN OS

OUT OF SERVICE 07/04/2014 TO 09/14/2014 72 DAYS AT LOST LOCOMOTIVE, NE OS

**Certification of true copy.**

**I certify that this is a true copy of the inspection and repair record of locomotive no. UP 3780**

*ATTENTION: A false entry on this form is punishable by fine or imprisonment (U.S. Code, Title 18, Sec. 1001).*

01/01/2016

(Officer-in-charge)

DATE

FORM FRA F6180-49 A (11/2012) .

