

# Modern Traction in China

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Our 15<sup>th</sup> trip to China was the first one that was exclusively for "modern traction". Indeed, not a single steam loco was seen during our 2 and 3 week trip respectively. Thorge spent the first week in Guizhou and Guangxi, I joined him for the remaining two weeks. For two weekends, Julien Blanc also joined us.

## Guizhou and Guangxi

by Thorge Bockholt

### 1) Guiyang Area

May 13<sup>th</sup> 2006 (overcast)

Guiyang-Guiding section of the Guiyang-Huaihua line is very scenic with numerous tunnel, viaduct etc. The expressway is more or less parallel to the railway line. All freight trains (very numerous!) seen were hauled by SS<sub>3BG</sub> double-units.

QJ	3234(ooou), 329x(ooou)
DF	1734
DF <sub>4</sub>	2015, 2019(4th Constr.Brigade)
DF <sub>5</sub>	1299, 2059
DF <sub>7C</sub>	5126
SS <sub>1</sub>	119, 400
SS <sub>3</sub>	6070
SS <sub>3B</sub>	4183, 4217, 4258, 5074, 5081
SS <sub>3BG</sub>	0003, 0038, 5010, 5012

### 2) Guiding-Mawei-Jinchengjiang

May 13<sup>th</sup> to 19<sup>th</sup> 2006 (14<sup>th</sup> to 19<sup>th</sup> sunny!)

The entire line is worked by DF<sub>7D</sub> diesel-electrics, always working in pairs. South of Duyun, due to steep gradients, freight trains have to be split into 2 or 3 parts. Each part is headed by two, sometimes even three or four DF<sub>7D</sub>. Guiding-Mawei is worked by Guiyang based DF<sub>7D</sub> in orange livery whereas Mawei-Jinchengjiang is operated by Liuzhou based DF<sub>7DS</sub> in green livery. According to a worker of Mawei depot, the allocation for Guiding-Mawei section is: DF<sub>7D</sub> 0025-0028, 0063-0128 and 0131-0140

Between Duyun and Jinchengjiang, a new railway line (single track electrified) is under construction, more or less parallel to the old line, but without the steep grades and narrow curves of the old line.

In general, the Landscape is full of typical Jinchengjiang or Guilin-like karst mountains. Numerous rice-fields offer also offer a lot of wonderful photo spots. Traffic levels are very high. Very often, freight trains cross each other at every station. Most scenic sections of the old line are:

- Mochong-Jingzhai (spiral tunnel, horseshoe)
- Chaodong-Fengdong
- Mawei-Siting (gorge)
- Nandan-Yaozhai (horseshoe)

The section Yaozhai-Jinchengjiang was not visited.

Hotels can be found at Duyun, Dushan, Mawei and Nandan. A problem, however, can be local transport as roads are very bad (usually dirt roads) and only few taxis are available.

DF <sub>7C</sub>	5204(@Duyun), 5510(@Mawei)
DF <sub>7D</sub> green	0001, 0002, 0003, 0004, 0005, 0006, 0007, 0008, 0010, 0011, 0012, 0013, 0014, 0015, 0016, 0018, 0019, 0021, 0022, 0023, 0029, 0030, 0031, 0032, 0033, 0034, 0039, 0041, 0042, 0043, 0044, 0045, 0046, 0047, 0050, 0051, 0052, 0053, 0054, 0055, 0057, 0058, 0059, 0060, 0062, 0130, 0141, 0142, 0143, 0144, 0146, 0148, 0149, 0150 (all Liuzhou depot, Jinchengjiang subdepot)
DF <sub>7D</sub> orange	0025, 0027, 0028, 0063, 0064, 0066, 0067, 0068, 0069, 0070, 0072, 0075, 0076, 0079, 0082, 0083, 0084, 0085, 0086, 0087, 0088, 0089, 0090, 0091, 0093, 0094, 0095, 0096, 0098, 0100, 0101, 0102, 0103, 0105, 0106, 0107, 0108, 0110, 0111, 0112, 0113, 0114, 0115, 0116, 0117, 0118, 0119, 0120, 0121, 0122, 0123, 0124, 0126, 0127, 0132, 0133, 0134, 0135, 0136, 0137, 0138, 0139 (all Guizhou depot, Mawei subdepot)

### 3) Shangrao, Shangrao-Wuyishan

May 20<sup>th</sup> 2006 (sunny)

- Jinhua-Shangrao section of Hangzhou-Zhuzhou line: the old line is fully equipped with poles and wires. DF<sub>4</sub> in orange and green dominate.
- Shangrao-Yongding-(Wuyishan) line is also worked by DF<sub>4</sub>, but freight trains are very few. Station staff at Yongding indicated, there are usually only one, two or three freight trains per direction and day. Additionally, most passenger trains (hailed by orange DF<sub>4B</sub>) work during the night.

DF <sub>4</sub>	1302, 1338, 1371, 1483, 2160, 2398, 2399, 3300, 9090, 9110, 9192 (all @Shangrao)
DF <sub>4</sub>	2483, 9120 (both @Yongding)
DF <sub>4</sub>	3955, 3979 (both @Leping)
DF <sub>5</sub>	1895 (@Shangrao)

## Zhejiang, Shaanxi, Gansu and Beijing

by Florian Menius

### 4) Nanchang/Xiangtang

2006-05-20 (sunny)

Having arrived at Beijing Capital Airport, I took domestic flight Hainan Airlines HU7193 to Nanchang (B737, 760Y incl. tax), where I arrived by 16:30 on May 20th 2006. Bus shuttle services from Nanchang airport to the city are provided by 9-seat-minibuses which go to "destinations upon demand" within the city. However, Flat fare is 15Y tickets are to be bought at the "official" airport bus counter in front of the terminal building. Distance is about 20km, mostly via expressway. Travel time to the main station is some 45 minutes.

When I arrived at the main station, purely accidental, a passenger train to Jingdezhen was to leave within 7 minutes time. Buying a ticket on board proved to be no problem. Train 5206 (Nanchang 17:55-Jingdezhen 22:52) was hauled by orange liveried DF<sub>4BK</sub> 2386 (in scrapyard condition!) as far as Yingtan, where green DF<sub>4B</sub> 6478 took over. Between Nanchang and Yingtan, the train managed to create a delay of more than one hour, later reduced to 45 minutes at Jingdezhen.

Observations:

- Electrification & Speed Up: between Nanchang and Xiangtang, the poles are currently being erected. Last pole-free location is Nanchang main station. Between Xiangtang and Yingtan, the poles are also "up" at most, but not all places (e.g. Yujiang-Yingtan section). The catenary was still missing anywhere. East of Xiangtang, the newly built 160-km/h-tracks are already in use, also the new station (e.g. at Dongxiang). The old curvy double track line is abandoned and partly already re-used as fields, building sites etc. The new line is completely fenced-off, so almost inaccessible (not only for photography...)
- Motive Power Nanchang-Xiangtang: Passenger and express trains seen had either DF<sub>4BK</sub> ("Juzi"= orange [the fruit]), 145-km/h-DF<sub>4DS</sub> (0xxx-series) or DF<sub>11</sub>, mostly of Nanchang depot. The very heavy freight traffic (one train every 7-10 minutes!) was shared by DF<sub>4B</sub> and DF<sub>4CS</sub>, sometimes also double-heading their trains.
- Motive Power Xiangtang-Nanchang: Passenger trains were mostly DF<sub>4D</sub> 0xxx or "Juzi" (about equal share). The latter ones probably are ex Shangrao and ex Yingtan locos (both depots are assumed to have been closed recently), depot codes noted were Nanchang and Xiangtang only. Freight traffic, which is a bit less dense than on the north-south-line through Xiangtang, was shared by DF<sub>4B</sub> and DF<sub>8BS</sub>, also sharing the duties about 50:50.
- Of special interest was brand-new looking DF<sub>11</sub> 0458, seen at Nanchang main station. So far, the highest DF<sub>11</sub> I knew was 0454 built in 2004. It seems whether DF<sub>11</sub> production still continues at a very low level...
- Equally interesting was to see "old" Juzi 2102 on express train duties (second oldest DF<sub>4BK</sub>, built ca.1986/87).
- Both Yingtan and Shangrao depots seem to have merged into Xiangtang depot as neither Yingtan nor Shangrao depot codes were noted.

DF <sub>4</sub>	0429(XT), 1243(XT), 1458(XT), 2102(XT), 2168(XT,green), 2312(green), 2322(NC), 2372, 2386(NC,DI93), 6271, 6471(XT), 7031(XT), 9120(XT), 9266
DF <sub>4C</sub>	4433, 5007(XT)
DF <sub>4D</sub>	0397(NC,DI/99)
DF <sub>5</sub>	1868(NC)
DF <sub>11</sub>	0310(NC), 0396(NC,Qi/02), 0458(NC)
GK <sub>1C</sub>	0234 (Nantie...@NanchangNan)

XT=Xiangtang, NC=Nanchang

At Jingdezhen, I met up with Julien and Thorge.

## 5) Jingdezhen/Huangshan

2006-05-21 (sunny)

The Yingtan/Guixi-Jingdezhen-Huangshan section of the line to Wuhu is 100% worked by Xiangtang based DF4B, both in orange livery ("juzi") and green ("xigua"=water melon). Juzi haul passenger trains of course, but some xiguas also have to fill in as there seem to be insufficient juzi for all trains. Interesting spots are:

- large river bridge at Leping
- mountainous area between Ciyi and Jingdezhen
- Jingdezhen station (from bridge north of station, early morning)
- river valley around Shitan

Almost all intermediate stations are old-style ones and provide excellent photographic backdrop. Same is valid for many barrier posts along the line.

During noon hours, using Julien`s private car, we changed to the Huangshan leg of the line. A word of warning: The two Anhui province counties between Jingdezhen and Huangshan (Qimen county and Haiyang county) are still closed areas! An ATP is required. Our unauthorised visit to the gorge section west of Qimen (great scenery, large viaducts, pagoda on top of hill etc.) resulted in a 5-hour-spell at Qimen Railway Police Office including loss of films, baggage inspection, interrogations, everything being videotaped by a police officer! Initially, the policemen were unusually aggressive towards us. Qimen seems to be a highly sensible area...

Later, a much more friendly senior police officer told us, that fines of 500-2.000Y apply. Alternatively you spend up to 10 days in a Chinese jail or you are expelled from the country... "Closed areas" may be crossed by non-ATP-holders inside "closed vehicles", e.g. inside a bus or train, but getting off, walking around or riding a bike is allowed only for ATP holders. It was also indicated, that a list of closed area is published on the internet. However, I didn`t find it so far (only a positive list with "open areas" of non-Chinese and non-official origin was found online). Currently, Anhui has got three closed counties (including Qimen and Haiyang), whereas Jiangsu and Zhejiang are completely "open" provinces according to Qimen police.

DF <sub>4</sub>	2241(XT), 2335, 2643(XT,DI/99), 3351(XT,Zy/89), 3959(XT,Zy/94), 6478(XT), 7068(XT), 7351(XT), 9053(XT,Zy/95), 9088(XT), 9190
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XT=Xiangtang

## 6) Hangzhou-JinhuaXi

2006-05-22 to 2006-05-24 (rain/sunny/sunny)

Rainy May 22<sup>nd</sup> was used for inspection of the status of the Hangzhou-JinhuaXi line. Our question was: is the old line still in use? The answer was YES.

Around Hangzhou, the existing tracks will be used 1:1 after electrification. The realignment of line starts at Bailiutun. The two new tracks immediately climb onto a 290-pilon, some 5 km long viaduct, followed by two shorter viaducts and a tunnel. Then, Puyang viaduct is reached, parallel to the old line, but 20 m above the old line... The viaduct is some 3-4 km long. Both Zhuji and Yiwu city are bypassed some kilometres further north using new stations. The only additional passenger station on the new line was built at Pujiang some 0.7 km east of the existing station.

Most attractive section of the old line:

- Puyang station (with new viaduct as backdrop)
- Puyang-Meichi section along the river and an edge of mountains
- Hongmen station
- Zhuji : passage through the town with numerous "urban style" photo spots
- Waichen station
- Pujiang-Dachen-Suxi section: tunnel, valley, numerous clothing factories, river viaduct next to Dachen market square, church near Dachen, pagoda on top of hill north of Suxi, city passage Suxi (river bridge, cuttings, factory buildings, dwellings).
- Yiwu station (city as backdrop)

As accommodation, we strongly recommend the XinDa Hotel at Yiwu. Situated next to the tracks at the western end of the station (some 400-500 m walk from the station), it offers rooms with view into the station. But even better is the sound! All westbound passenger trains will be in progress of accelerating beneath your hotel window – very noisy, of course, especially when a DF<sub>11</sub> takes turn. Additionally, eastbound trains have to tackle a (minor) climb through the station. This means, that the DF<sub>4B</sub>s with their freight trains blast through the station at both maximum speed possible (maybe 70 to 80 km/h...) and maximum power. Incredible trash!

Motive power was basically unchanged compared to our January visit to the area: Hangzhou based DF<sub>4DK5</sub>, DF<sub>11</sub> and "juzi" dominate passenger duties, some Shanghai based DF<sub>11</sub> fill in, too. This time, DF<sub>11</sub> were considerably more present than in January. Line freight trains are 100% xigua, mostly from Hangzhou depot with a couple of Xiangtang locos also filling in.

DF <sub>4</sub>	1302, 1303(HZ,DI/87), 1306(HZ), 1310(HZ,DI/87), 1312(HZ,DI/87), 1315(HZ,DI/87), 1334(HZ), 1335(HZ,DI/87), 1338(HZ,DI/87), 1339(HZ), 1340, 1341(HZ,DI/87), 1342(HZ), 1343(HZ), 1348(HZ,DI/87), 1351(HZ), 1352(HZ,DI/87), 1353(HZ,DI/87), 1354(HZ,DI/87), 1358, 1359(HZ,DI/87,cooler grill), 1418(HZ,DI/87), 1420, 1717(HZ,DI/89), 1718(HZ,DI/89), 1719(HZ),
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	2106(HZ,DI/87), 2191(XT,green), 2219(XT,green), 2245(HZ,DI/90), 2371(HZ), 2446(XT,DI/94,green), 2463, 2467(HZ,DI/94), 2468(HZ,DI/94), 2509(HZ,DI/95), 2510(HZ,DI/95), 2511(HZ,DI/95), 2512, 3329(HZ,Zy/89), 3337, 3356(HZ), 3373(HZ), 3452, 3599(HZ,Zy/92), 3696(HZ), 3700(HZ,Zy/93), 3702(HZ), 3736, 3851, 3879(HZ,Zy/94), 3880(HZ,Zy/94), 3881(HZ,Zy/94), 3883(HZ,Zy/94), 3884, 3885, 3887(HZ,Zy/94), 3962(HZ), 6261(HZ,Dt/93), 6262, 6264, 6265(HZ), 7242(HZ,DI/93,orange), 7358(HZ,DI/94), 7359(HZ,DI/94), 7360(HZ,DI/94), 9013, 9019(HZ), 9049(XT,Zy/95), 9391(HZ,Zy/97), 9392, 9452(HZ)
DF <sub>4D</sub>	0448(HZ), 0485(HZ), 0488(HZ), 0510(HZ,DI/00)
DF <sub>4DK</sub>	3141(HZ,DI/01), 3142(HZ,DI/01), 3143(HZ), 3144(HZ,DI/01), 3146, 3190(HZ,DI/02), 3191(HZ,DI/02), 3192(HZ,DI/02), 3194(HZ,DI/02), 3195(HZ,DI/01), 3196(HZ), 3197, 3204(HZ,DI/02), 3214, 3215(HZ), 3216, 3218, 3252(HZ,DI/02), 3253, 3254(HZ,DI/02), 3256(HZ), 3266(HZ,DI/02), 3267(HZ,DI/02), 3268(HZ), 3281(HZ), 3285
DF <sub>5</sub>	1884(HZ), 1981(HZ,low-nose), 1982(HZ,Sf/03,low-nose), 1984(HZ,Sf/02,low-nose)
DF <sub>11</sub>	0018(SH,Qi/96), 0021(HZ,Qi/96), 0026(SH,Qi/96), 0027(SH), 0028(SH,Qi/96), 0029(SH,Qi/96), 0043(SH,Qi/97), 0081(SH), 0083(SH), 0084(SH,Qi/98), 0110(HZ), 0117(Qi/98), 0121(SH,Qi/99), 0136(HZ,Qi/99), 0271(SH), 0340(HZ,Qi/02), 0342(HZ), 0368(HZ,Qi/02), 0369(HZ), 0371(HZ), 0372(HZ), 0383(HZ), 0406(HZ,Qi/03), 0433(HZ,Qi/03), 0434(HZ), 0436(HZ), 0440(HZ)
ND <sub>2</sub>	0206(@Zhibu, constr.train duty)

HZ=Hangzhou, SH=Shanghai, XT=Xiangtang

## 7) Shanghai-Nanjing-Xuzhou

2006-05-25 (cloudy & rain)

The day was spent riding K376 Shanghai 08:16-Xining via Xuzhou, Zhengzhou and Xi'an. Along the whole length of the line, electrification works are in their final stages ("adjustment works", catenary regulation). No doubt, electric traction will be fully available for the planned October 2006 speed up. Additionally, the whole line is fenced-off by concrete fences. Combined with the poles and wires, almost any photogenic potential is absent now!

Observations:

- ND<sub>3</sub> seem to have vanished from Shanghai and Nanjing areas. All shunting locos seen were either brand-new DF<sub>7C</sub>s and DF<sub>7G</sub>s or quite early DF<sub>7C</sub>s (50xx series), around Nanjing also some DF<sub>5</sub>. Shanghai Harbour is also assumed no longer to use ND<sub>3</sub>.
- All DF<sub>8B</sub> seen on freight duties between Shanghai and Nanjing (as well as all DF<sub>7</sub> around Shanghai) had Shanghai depot code, no longer the Nanxiang one. Nanxiang depot seems to have merged into Shanghai...
- Passenger trains between Shanghai and Xuzhou are dominated by Shanghai based DF<sub>11</sub> which work through all the way. Only a few DF<sub>4D</sub> and DF<sub>4DK</sub> (Nanjing depot) fill in on secondary duties.
- ND<sub>5</sub> can be seen west of Wuxi (small portion of trains) as well as between Nanjing and Xuzhou (virtually 100% of freight trains).
- At Bengbu depot, numerous juzi were spotted. It is assumed that they work the line towards Hefei.
- Of special interest was odd numbered DF<sub>8B</sub> 7001 spotted at Qishuyan station in front of a military train. Unfortunately neither depot code nor the worksplate could be identified from the passing train.

DF <sub>4</sub>	2027(w/o depot code,green,@Luling),2103, 2465, 2513, 2540
DF <sub>4D</sub>	0060(NJ), 0205(NJ), 0206(NJ,DI/98), 0453, 0513(NJ,DI/00)
DF <sub>4DK</sub>	3054(NJ,DI/00), 3083
DF <sub>5</sub>	1624(NJ), 1717(NJ), 1791(NJ), 1860(NJ)
DF <sub>7C</sub>	5003, 5005, 5006, 5028(SH), 5034(SH), 5238(NJ), 5533(NJ)
DF <sub>7G</sub>	0030(SH), 0037(SH), 0056(SH), 0058(SH), 0059(SH), 5147(SH)
DF <sub>8B</sub>	0009(SH,Qi/99), 0012(SH,Qi/99), 0015(SH), 0016(SH), 0059, 0073, 5022(SH,Zy/99), 5058(SH), 5060(SH,Zy/00), 5135(SH), 5279, 7001
DF <sub>11</sub>	0044(SH,Qi/97), 0082(SH,Qi/98), 0083(SH,Qi/98), 0272(SH), 0350(SH), 0384(SH), 0417(SH)
DF <sub>11G</sub>	0017(SH), 0018(SH), 0024(SH)
ND <sub>5</sub>	0015, 0021, 0032, 0087, 0092(NJ), 0100(NJ), 0202, 0229(NJ), 0271, 0290(NJ), 0312, 0321(NJ), 0385

NJ=Nanjing, SH=Shanghai

## 8) Xuzhou, Xuzhou-Zhengzhou

2006-05-25 (cloudy)

- Xuzhou depot contained at least 2 or 3 stored, red electric passenger locomotives, probably SS<sub>7E</sub> (or SS<sub>9G</sub>).
- Virtually all freight trains between Xuzhou and Shangqiu were hauled by DF<sub>8B</sub> (both Zhengzhou Bei depot and Xuzhou depot). One freight had a ND<sub>5</sub>, one or two others DF<sub>4B</sub>. Passenger trains usually had DF<sub>4D</sub> or DF<sub>4DK</sub> (both Zhengzhou and Xuzhou depot).
- Shangqiu depot contained numerous DF<sub>4B</sub> (probably used on the JingJiu line).

DF <sub>4</sub>	1850(XZ,DI/90), 2506(XZ,DI/95), 3110(ZZ), 6453, 7517, 7528, 7724(probably a PeiTun loco)
DF <sub>4D</sub>	0247(ZZ), 0269(ZZ), 0276(XZ), 0336(XZ), 0374(XZ), 0403(JN), 0517, 0519(XZ)
DF <sub>4DK</sub>	3040, 3228(ZZ)

DF <sub>7</sub>	0131
DF <sub>8B</sub>	5051(XZ), 5113, 5386(ZZB)
ND <sub>5</sub>	0108

JN=Jinan, XZ=Xuzhou, ZZ=Zhengzhou, ZZB=ZhengzhouBei

## 9) Xi`an-Huashan-Luoyang

2006-05-27 (sunny)

A complete day was spent between Huashan (formerly Mengyuan) and Huashan Xi (formerly Huashan). Huashan Mountain offers a great photo backdrop for morning photography, whereas during noon and afternoons, its flanges can be used as vantage points. Freight traffic is very dense, up to five trains per direction and hour. Biggest problem are the fences, which are present along the whole Xi`an bureau part of LongHai line (Zhengzhou bureau part does not have them yet)! Not only do they spoil some spots, they also make changing locations extremely difficult and dangerous! Either you have to walk inside the fences (dangerous! freight trains pass at 90 km/h, glass bottles and rubbish is thrown out of passenger coach windows...), or you have to climb through the loess canyons (very time-consuming, exhausting and annoying).

All Huashan to HoumaBei trains seen were hauled by either Taiyuan based juzi (passenger trains) or double-headed xigua of HoumaBei depot (freight). Among the locos was very early DF<sub>4</sub> 0007 (probably built in 1975, but builderplate was missing...).

On the LongHai line Luoyang based 6Ks dominate, they work through from Luoyang as far as Xinfengzhen (near Xi`an), usually single headed. SS<sub>6</sub> do more or less the same. For the first kilometres east of Huashan (Mengyuan), eastbound freights require double-heading. Luoyang based SS<sub>3B</sub> pilot the 6K or SS<sub>6</sub> here and return light engine to Huashan. Between Sanmenxia Xi and Luoyang freight trains in both directions require double-heading. Luoyang based 6K or SS<sub>6</sub> are pilots.

Xi`an or Xinfengzhen based SS<sub>1</sub> are very seldom around Huashan. As a general rule, there seem to be no SS<sub>1</sub> duties east of Huashan, most SS<sub>1</sub> hauled trains seem to continue along the NanTongpu line towards Yuncheng and Houma. This includes the passenger trains as well: all Houma bound expresses which do not operate directly to Ankang (avoiding Xi`an) are very likely to be SS<sub>1</sub>-hauled between Xi`an and Huashan.

Xi`an to Luoyang/Zhengzhou expresses are hauled by a mixture of SS<sub>7C</sub> and SS<sub>7E</sub> of Lanzhou depot (they work through all the way from Lanzhou to Zhengzhou!) or SS<sub>7D</sub>/SS<sub>7E</sub> of Xi`an depot. As a general rule, SS<sub>7D</sub> can be found only on trains that either originate or change loco at Xi`an or Baoji (e.g. trains from Chengdu), all trains coming from west of Baoji have Lanzhou locos. Of special interest: not a single SS<sub>7E</sub> of Zhengzhou depot was noted...

Of special interest in the Xi`an area is the recently completed railway to Nanjing via Nanyang, Xinyang, Hefei. At the Xi`an end, this single track line (using many large viaduct and tunnels) is electrified. Unfortunately, we did not see a train on this line, so we cannot comment on motive power. Maybe the "old" SS<sub>3</sub> of Xinfengzhen depot? The line reaches the LongHai line a couple of kilometres east of Weinan and parallels the LongHai for some kilometres (Xi`an-Nanyang is some 500 m south of LongHai line here). At Lintong, a sequence of no less than 4 freight yards starts, all situated north of LongHai. The Nanyang line therefore crosses over the LongHai and enters the first freight yard. Between Lintong and Xinfengzhen, the Nanyang line is also double track.

6K	001, 002, 003(LY), 004, 005, 007, 009(LY), 013, 014(LY), 016(LY), 018, 020, 023, 024, 030, 031, 042, 045, 047, 048, 049, 051, 057, 059, 062, 066, 067(LY), 069, 072, 076(LY), 077(LY), 081(LY), 082
SS <sub>1</sub>	625, 649(XA), 0730, 0737(XA), 0811
SS <sub>3</sub>	0302, 0357(XF), 0486(AK)
SS <sub>3B</sub>	4435(LY), 4436(LY), 5217(LY), 5227(LY)
SS <sub>4</sub>	0139(XF)
SS <sub>4G</sub>	0769(XF), 0803
SS <sub>6</sub>	0005(LY,Zz/91), 0010, 0013, 0015, 0017, 0018, 0022(LY), 0023, 0024, 0025(LY), 0026(LY,Zz/91), 0027, 0028, 0029(LY), 0030, 0039, 0044, 0048(LY), 0051
SS <sub>7C</sub>	0018(LZ), 0023, 0024, 0026(LZ), 0028, 0030(LZ), 0037(LZ), 0045(LZ), 0047(LZ), 0050(LZ), 0061(LZ), 0080(AK)
SS <sub>7D</sub>	0005(XA), 0006, 0008, 0009(XA,Dt/02), 0010(XA), 0012, 0014(XA,Dt/02), 0018(XA), 0020(XA), 0021, 0023(XA), 0029, 0033, 0034(XA), 0035, 0038, 0045(XA), 0047(XA), 0049(XA), 0051(XA,Dt/02), 0052(XA), 0053(XA), 0055, 0056, 0057(XA), 0631(XA,Dt/02)
SS <sub>7E</sub>	0001(XA), 0011, 0018(LZ), 0022(LZ), 0027(LZ), 0028(LZ), 0029, 0040(XA), 0044(LZ), 0047(LZ), 0049(LZ), 0051(LZ), 0073(XA), 0074(XA), 7001(XA), 7003(XA), 7004
DF <sub>4</sub>	0007(HB), 0768, 2259(TY,DI/90), 2378(TY,DI/93), 2529(TY,DI/95), 2569(XA,DI/96), 3579(XA,Zy/92), 6462(HB), 9487(4th constr.unit / "SiJu",blue-crème)
DF <sub>7</sub>	3118(@Weinan)
DF <sub>7B</sub>	6046(XF)
DF <sub>7C</sub>	5288(XF), 5289(XF), 5316(XA), 5340(XF), 5620(XF)
DF <sub>7G</sub>	5140(XF,Bj/05)

AK=Ankang, HB=HoumaBei, LY=Luoyang, LZ=Lanzhou, TY=Taiyuan, XA=Xi`an, XF=Xinfengzhen

## 10) Baoji

2006-05-26, 2006-05-28 to 30 (all days sunny)

Four days were spent around Baoji. Baoji probably offers the highest variety of both electric loco classes and landscapes in China.

- It seems whether Baoji depot is in the progress of being merged into Xinfengzhen depot or is already part of it. All former Baoji SS<sub>1</sub> already had XFZ depot codes, similar to the SS<sub>4</sub>/SS<sub>4G</sub>, whereas SS<sub>3</sub> and SS<sub>6B</sub> had either XFZ or Baoji codes.
- SS<sub>1</sub> 571 has got an old shape body (old cooler windows) like the "old" SS<sub>1</sub> used to have (SS<sub>1</sub> 008-SS<sub>1</sub> 220). I think, that this engine is a renumbered older SS<sub>1</sub>.

### a) Baoji-Xi`an

Except for the first 4 kilometers east of Baoji and the river bridge at Xianyang, this line is almost void of any interest. Hermetically fenced-off, flat terrain without any vantage points except for 2 road overpasses along 173 km of line (!) make it one of the most boring lines in China. So, why bother? Write off this line??

No! The "problem" is, that the Baoji-Xi`an line offers SS<sub>1</sub> hauled freights in quantity! 100% of freights are SS<sub>1</sub>-hauled plus some passenger trains too (through trains from Houma/Huashan, e.g. train 2535, Baoji arr. 08:53). Remaining passenger trains have got SS<sub>7C</sub>, SS<sub>7D</sub>, SS<sub>7E</sub> or SS<sub>6B</sub> (only trains that terminate in Xi`an). Passenger trains to Pingliang/Zhongwei/Yinchuan are hauled by SS<sub>3</sub> (or SS<sub>1</sub>).

### b) Guozhen-Pingliang

Though not visited, it is very likely, that freight trains along the southern part of this partly highly spectacular line are hauled by SS<sub>1</sub>. Passenger and express trains seen at Baoji usually were SS<sub>3</sub>-hauled, an additional overnight express (A-train) Xi`an-Yinchuan even had SS<sub>1</sub> haulage.

### c) Baoji-Tianshui

The line becomes attractive a few kilometres west of Baoji where the line starts to climb into the WeiHe river valley. The second track of the line, added some years ago, is on the valley side (southern track, e.g. for Tianshui bound trains) and has lighter curves, but uses numerous large viaducts. There are a couple of good photo spots for afternoon trains to Tianshui with Baoji city as backdrop. Unfortunately, on both afternoons we spent there, the Tianshui bound track was blocked for a couple of hours for maintenance works – in the best afternoon light! The line is also fenced-off, but not as hermetically as east of Baoji.

All freight trains are hauled by Lanzhou (or LanzhouXi) based SS<sub>3</sub> or SS<sub>3B</sub>, usually single headed. If traffic flows, it can be quite dense with up to 12 trains within 3 hours. Passenger trains are hauled by Lanzhou based SS<sub>7C</sub> or SS<sub>7E</sub>, a not-advertised 4-coach local passenger train (probably Baoji-Tianshui) has got a SS<sub>6B</sub> (arrival at Baoji around 17:00).

The line can be accessed by local buses: take either a bus to Linjiacun (林家村, road at the valley bottom, there is also a road on top of the hills, but buses are less frequent) and get off at the first big concrete viaduct (7 to 8 km from Baoji, fare 2Y).

### d) Baoji-Fengzhou(-Guangyuan)

China`s first electric railway still is amongst the most challenging lines in China. Just south of BaojiNan station, the line enters a deep valley and starts to climb. For the following 8 to 10 kilometres, the valley is very scenic with countless photo spots for trains in both directions. Beyond Yangjiawan (km 15), the valley becomes deeper, tunnels longer and more frequent, but also vegetation is denser. The horseshoe-and-serpentine section (until Qinling, km38) is almost unphotographable except for 3 viaducts which are visible from the road.

Access to the lower part of the line: take the minibus from Baoji station square to Taipingzhuang (太平庄). The bus terminates close to a toll-gate. This is just at the beginning of the scenic section...

As a general rule, most passenger trains are hauled by SS<sub>6B</sub>, a few have got (old) SS<sub>3</sub>, SS<sub>7D</sub> or SS<sub>7E</sub>. Passenger trains in both directions are piloted by SS<sub>4</sub>, usually one loco, but sometimes even two. So, triple-headers may appear, e.g. SS<sub>4</sub>+SS<sub>4</sub>+SS<sub>6B</sub>. Freight trains are usually single headed SS<sub>4</sub>, sometimes also double-headed. All trains (both directions) are banked by a pair of SS<sub>4</sub>. So, up to four SS<sub>4</sub> on one train is possible...

Traffic levels are very high, the line is worked close to capacity with trains often crossing each other at every station...

SS <sub>1</sub>	565(XF), 571(XF,old shape), 572(XF), 574(XF), 601, 607(XF), 609(XF), 610(XF), 616, 618, 619(XF), 620, 622(XF), 623(XF), 628(XF), 631(XF), 632(XA), 633, 645, 0655(XF), 0656(XF), 0663(XF), 0683, 0732, 0734(XF), 0805, 0806, 0807(XF), 0810(XF), 0811(XA), 0816(XF), 0817(XF), 0819(XF), 0823
SS <sub>3</sub>	0015(BJ), 0143(BJ), 0155, 0165(BJ), 0271, 0363(LZX), 0369(LZX), 0396(LZX), 0397, 0428(LZ), 0468, 0533(LZ), 0540(LZX), 0542(LZX), 0549(LZ), 0550, 0551, 0556(LZX), 0573(LZ), 0584(LZ), 0593(LZ), 6043(BJ), 6048, 6051(XF), 6052, 6069(LZ), 6070(BJ,deco), 6075, 6081(LZ)
SS <sub>3B</sub>	4216(LZX), 5042(LZX)
SS <sub>4</sub>	0004(XF), 0005, 0006, 0007(XF), 0008, 0009(XF), 0010(XF), 0013(XF), 0015, 0018, 0026(XF), 0031(XF), 0033, 0038, 0039(XF), 0040, 0041, 0043, 0096(XF), 0097, 0098, 0105(ou), 0120, 0121(XF), 0126, 0141(XF), 0143, 0147(XF), 0149, 0156
SS <sub>4G</sub>	0339, 0340, 0345, 0363, 7058, 7059(XF,DI/03), 7060(XF), 7061(XF), 7063, 7081
SS <sub>6B</sub>	1001(BJ), 1002(BJ), 1006, 1007, 1008(XF), 1009, 1011, 1013(BJ), 1014, 1016(BJ), 1019, 1020, 1021(BJ), 1022(BJ), 1023(BJ), 1033
DF <sub>7</sub>	0097(XF,Bj/95), 0103(XF), 0153, 0191

DF <sub>7C</sub>	5527, 5528(XF,blue), 5619(XF)
DF <sub>7G</sub>	5138(XF)
TH	012

BJ=Baoji, LZ=Lanzhou, LZX=LanzhouXi, XF=Xinfengzhen

## 11) Lanzhou

2006-05-31 and 2006-06-01 (sunny / hazy)

One day was spent around HekouNan. Due to engineering works, the line to Wuwei and also to Lanzhou was blocked for the whole morning: the lonely train before 11:00 was the T train diesel railcar Lanzhou-Xining! From noon on, traffic on the Xining line got heavy with a train about every 15-20 minutes. Unfortunately, along the Xining line, there were also engineering works: fences were being prepared...

The double-track line to Wuwei is completely fenced-off, the new HuangHe bridge is in use for Wuwei-bound trains, the old one for Lanzhou bound trains. According to railway staff, the tunnel at Tianzhu is fully operational, but we didn't check it personally.

Motive powers on the Xining lines remains LanzhouXi based DF<sub>4</sub>/DF<sub>4B</sub>. A recent development are the DF<sub>4DK</sub> (marked "QingZangTielu, Xining depot"), which seem to haul all passenger trains in pairs (=double heading). Only the two pairs of T-express trains to Xining are exceptions (NZJ<sub>2</sub> railcar).

On the Wuwei line, SS<sub>1</sub> have completely vanished, not a single loco was seen all day long. Freight trains now have either SS<sub>3</sub> (80-90%) or SS<sub>3BG</sub> (remainder). Passenger trains have got either a SS<sub>7C</sub> or a SS<sub>7E</sub>, the latter class even being used on the Wuwei all-station stopping passenger train...

New duty of Lanzhou's SS<sub>1</sub> is piloting freight trains from Lanzhou towards Dingxi (in front of a SS<sub>3</sub>), but SS<sub>3</sub> pilots also appear. Additionally, some passenger trains towards Baiyin/Zhongwei are SS<sub>1</sub> hauled now.

It seems whether Lanzhou and LanzhouXi depots are in progress of being merged. The number of "Xi" depot codes noted was much lower than on previous visits. And numerous freights had SS<sub>3</sub> with Lanzhou depot code (formerly, Lanzhou was "passenger depot", Xi "freight").

DF <sub>4</sub>	0114(LZX,DI/76), 0502(LZX), 0590(LZX,DI/83), 0591(LZX,DI/83), 0630(no depot code,DI/83), 1477(LZX,DI/88), 1632(no depot code,DI/89), 1999(LZX,DI/91), 3247, 3251(LZX,Zy/88), 6053(LZX,Dt/89), 6071(LZX)
DF <sub>4DK</sub>	3001(JI), 3096, 3139(JI), 3151(JI), 3205(JI), 3222(JI), 3230(JI)
DF <sub>5</sub>	1734(LZ,Sf/99), 1755(LZ), 1780(LZ), 1816(LZ), 1945(trad.shape)
SS <sub>1</sub>	314, 369(LZX), 569
SS <sub>3</sub>	0283(LZ), 0365(LZ), 0369(LZ), 0554, 0572(LZ), 0580, 0598
SS <sub>3B</sub>	5055(LZ)
SS <sub>3BG</sub>	6083(YSQ), 6084(LZX)
NZJ <sub>2</sub>	006, 008

LZ=Lanzhou, LZX=LanzhouXi, JI=Jining, YSQ=Yingshuiqiao

## 12) Luoyang-Zhengzhou-Handan-Shijiazhuang-Beijing

2006-06-02 (hazy)

Out of the window of T76 Lanzhou-Beijing, the following was observed east of Luoyang

- Numerous SS<sub>4</sub> hauled freight trains between Luoyang and Zhengzhou, stopping passenger trains hauled by 6Ks.
- freights between Zhengzhou and Xinxiang mostly SS<sub>3B</sub>, the depot at the new freight yard south of Xinxiang contained at least two dozens of SS<sub>4G</sub>, all coupled to pairs with subsequent building numbers (e.g. SS<sub>4G</sub> 0905+SS<sub>4G</sub> 0906).
- All freight trains north of Handan till Beijing were SS<sub>1</sub> hauled, but the line is absolutely unphotographable!

Luoyang-Xinxiang

SS <sub>3</sub>	0359
SS <sub>3B</sub>	4448(ZZ), 4456, 4463(ZZB)
SS <sub>3BG</sub>	0095, 0099
SS <sub>4G</sub>	0327, 0349, 0374, 0375, 0383, 0423, 0425, 0435, 0437, 0443, 0483, 0846(XX), 0847(XX), 0905(XX), 0906(XX), 0907(XX), 0908(XX), 0986(XX), 0987(XX), 6113(LY)
SS <sub>7E</sub>	0050
SS <sub>8</sub>	0090
DF <sub>4</sub>	2458, 6455, 9009
DF <sub>4D</sub>	0398, 0400(Xiangfan), 0496
DF <sub>4DK</sub>	3227(ZZ)
DF <sub>7</sub>	0078(LY), 0171, 0256
DF <sub>7B</sub>	6018
DF <sub>7C</sub>	5377(LY), 5617(XX)

DF <sub>8B</sub>	5029, 5525
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LY=Luoyang, XX=Xinxiang, ZZ=Zhengzhou, ZZB=ZhengzhouBei

Handan-Beijing

SS <sub>1</sub>	169, 174, 203(FT,deco), 254(FT), 269, 272, 276(FT), 283(FT), 301, 444, 453(FT)
SS <sub>4G</sub>	0505(FT)
SS <sub>7E</sub>	0054(ZZ)
SS <sub>8</sub>	0041(BJ), 0051(BJ), 0052, 0069(BJ), 0070(BJ), 0072(BJ), 0081(BJ)
SS <sub>9G</sub>	0080, 0157(WuchangNan)
DF <sub>4</sub>	0234(SJZB,DI/78), 0357, 2298(BJ), 2299(BJ,DI/91), 2352, 2432(SJZB), 2502(SJZB,DI/95), 6096, 6381
DF <sub>4D</sub>	0060(BJ)
DF <sub>7</sub>	0202(SJZB)
DF <sub>7C</sub>	5338
DF <sub>7G</sub>	5066

BJ=Beijing, FT=Fengtai, SJZB=ShijiazhuangBei, ZZ=Zhengzhou

### **13) Beijing, Beijing-Datong, Beijing-Taiyuan**

2006-06-03 to 2006-06-05 (hazy)

Two days were spent around Beijing, as the weather forecast promised sunshine for Beijing (and rain in the rest of the country)... Unfortunately, "Beijing sunshine" turned out to be rather "sun with thick haze": only some 2 hours in the afternoon were really sunny...

One day was spent along the Beijing-Shacheng line in the gorge between Sanjiadian and Shacheng. Though officially "double track", west of Yanchi, the line has better to be described as two single track line with single-direction operation. Usually, the tracks are separated by the river, for example the westbound track north of the river, the other south. The two tracks cross each other at least 3 times between Yanchi and Jiuzhuangwo, so no general rule which track is on which side of the river. As there are numerous (road) bridges across the river, changing the side of the valley is no big task around Jiuzhuangwo, where we spent June 3<sup>rd</sup> 2006. But further towards Yanhecheng, it will be much more difficult. Also, the long tunnels are not the best condition for walking along the track...

The area is quite popular with tourists from Beijing. As the valley is accessible by bad, dirt roads only, the tourists have to ride the passenger trains. And indeed, hiking in the valley is a good opportunity to spend one's time...

Traffic levels on the railway are incredibly high. Freight trains, almost without any exception hauled by French built 8Ks usually work in blocks: up to 6 or 7 seven train in sequence with intervals of less than 5 minutes is quite common. 8Ks are usually from Fengtai depot (FengtaiXi merged into Fengtai some time ago...), but locos of Hudong depot also appear (Hudong is the depot for the Datong-Qinhuangdao line, situated near Datong). Passenger trains are hauled by diesel locos of Fengtai depot: both DF<sub>4B</sub> (stopping passenger=xigua, K43/44=juzi) and DF<sub>4C</sub> (remaining trains) appear.

Beijing Nan station was closed in early May 2006. All trains formerly using "Nanzhan" have been diverted to other BJ stations. The stopping passenger train to Zhangjiakou via Sanjiadian for example starts at Beijing Bei zhan now and uses the northern ring line (only a single track line! Quails is wrong!) to reach Sanjiadian. There the train reverses, the HuairouBei DF<sub>4B</sub> is changed to a Fengtai DF<sub>4B</sub>. The morning train leaves Bei at 06:25, arrival is at 21:45, timings between Sanjiadian and Zhangjiakou remain more or less unchanged.

June 4<sup>th</sup> was spent along the Beijing-Taiyuan line around Shidu, another spot very popular with Beijing tourists due to the great cliffs there. The well known "tunnel through cliff" spot can be found just east of Shidu station. Numerous other good spots exist around Shidu station, but, however, many long tunnels make photography and changing location difficult. Shidu can be reached either by train (2.5 h, passenger trains to Taiyuan start at Beijing Xi since Nan zhan was closed) or by bus 917 from Beijing Tianqiao (which is some 2 km south of Qianmen). The bus, however, is even slower than the train, it needs some 3 hours+. The first bus in the morning leaves Tianqiao at 05:50 in the morning. Perfectly located, the terminus of the bus at Shidu is just below the railway viaduct (ShiDuTieLuQiao) east of the station.

On the Taiyuan line, a freight train operates every 1 to 2 hours per direction. Most of them are hauled by Fengtai based freight DF<sub>4D</sub> (4xxx series), but DF<sub>4C</sub>, DF<sub>4B</sub> and DF<sub>8B</sub> (all Fengtai locos) may fill in as well. The two pairs of passenger trains as well as the Beijing-Taiyuan overnight express, are the most remarkable trains on this line: they are hauled by pairs of BJ hydraulics, the so called "Da-BJ" ("big Beijing", 2xxx series). The Da-BJ are based at Beijing depot.

The morning hours of Jun 5<sup>th</sup> 2006, just before the return flight, were spent east of BJ main station. Few to report except for:

- Shanghai-Beijing-Z-trains are hauled not only by Shanghai based DF<sub>11G</sub>, but shared with Beijing based DF<sub>11G</sub>, too.
- Xuzhou based DF<sub>11G</sub> reach Beijing hauling the T-train from Taizhou.
- Tangshan depot is home to SS<sub>8</sub> electrics now.



8K	008(FT), 031(FT), 034(FT), 035(FT), 040(FT), 049(FT), 052(FT), 053(FT), 054(FT), 055(FT), 058(FT), 061(FT), 065(HD), 083(HD), 129(HD), 136(FT), 139(FT), 141(FT), 143(FT)
BJ	2002(BJ,Bj/86), 2003(BJ,Bj/86), 2005(BJ,Bj/89), 2006(BJ,Bj/86), 2010(BJ,Bj/90), 2011(BJ,Bj/90)
SS <sub>3</sub>	6056
SS <sub>8</sub>	0074(TS)
SS <sub>9G</sub>	0048(SY), 0076(BJ), 0084(SY), 0107(BJ), 0122(BJ)
DF <sub>4</sub>	0540(HRB,dl/83), 0645(HRB), 1263(HRB), 1451, 1845(blue-crème, lettered "DF4C"), 1861, 1939, 1940(FT,DI/90), 1941(FT,DI/91), 1946, 1958(HRB,DI/91), 1959(FT), 2600(DI/96), 3561(TS), 6096(HRB), 6097(HRB), 7554
DF <sub>4C</sub>	0015, 0017, 2001(FT), 4247, 4250(FT,DI/95), 4258(FT,DI/96), 5013(FT), 5292(FT,Zy/99), 5293, 5296(FT), 5321
DF <sub>4D</sub>	0242(FT,DI/98,blue-crème), 1893(FT,blue-crème,deco), 4011(FT,DI/99), 4018(FT,DI/99), 4019(FT,DI/99), 4020(FT,DI/99), 4023(FT,DI/99), 4024(FT,DI/99), 4025(FT,DI/99), 4030(FT,DI/99)
DF <sub>7</sub>	0011(FT), 0013, 0016(FT), 0046(FT), 0106(FT), 3112
DF <sub>7C</sub>	5525
DF <sub>7G</sub>	5035, 5037(BJ)
DF <sub>8B</sub>	5067(FT,Zy/00)
DF <sub>11</sub>	0145
DF <sub>11G</sub>	0003(SH), 0004(SH), 0011(BJ), 0012(BJ), 0019(SH), 0020(SH), 0033(BJ), 0034(BJ), 0035(SH), 0036(SH), 0047, 0048, 0125(Xuzhou), 0126(Xuzhou)
DFH <sub>5</sub>	0061
NZJ <sub>2</sub>	0003, 0005

BJ=Beijing, FT=Fengtai, HRB=HuairouBei, SH=Shanghai, SY=Shenyang, TS=Tanshan

Dresden, Jun 13<sup>th</sup> 2006  
Florian Menius