***IMPORTANT:*** *The booklet provides all FREMO participants with* ***different module-systems*** *and* ***era-neutral proven good practice*** *for direct application during FREMO meetings.* ***Any deviations and specific details are determined by the respective module system group or the meeting's organizing team.***

***Note:*** *North American railroad terminology is used in this booklet.* ***In case of any doubt or misunderstanding, the German version is authoritative. For clarification of German railway operating rules and procedures, please consult an experienced FREMO member.***

**Notes:**

## Further Information and Discussions

**FREMO-Forum: Topic**: "**Your Companion at FREMO Meet: Train Crew Booklet + Signal Book 301**" – exchange with other FREMO members about content, application, and improvement of the booklets.


## Acknowledgment

pecial thanks go to the FREMO community on the forum for their valuable contributions – in particular to Michael Bunka, Manja Baßler, Claudia Mühl, Dirk Splitt, and Thomas Woditsch for their professional review.




# TRAIN CREW
## Part 1: Locomotive Engineer

**Persona:** The Locomotive Engineer (*Triebfahrzeugführer (Tf)* or *Lokführer (Lf)*) is the person operating a powered unit (locomotive, multiple-unit car, or cab car).

**Duties and Responsibilities:**
- Safe and punctual operation of the train.
- Technical operation of the locomotive according to applicable rules.
- Observation and compliance with all signals and timetable instructions.

### Section 1: Preparation

- ☐ **Route knowledge of the arrangement**; unfamiliar lines acquired by **walkround**.
  - ☐ Locations of railway facilties e.g. stations (*Betriebsstellen*).
  - ☐ Signal locations.
  - ☐ Locations of manually-operated facilities (e.g. level crossing activation/deactivation).
  - ☐ Boundaries of sections operated under dispatcher-controlled operation (*Zugleitbetrieb (ZLB)*) (see App. 2: Dispatcher-Controlled Operation I)
- ☐ **Read the employee timetable carefully** — espcially arrival / departure times and assigned duties (see App. 1: Employee Timetable).
- ☐ **Arrive at the duty location on time**.
- ☐ Collect **FRED** or **wiFRED (FREMO handheld throttle).**
  - ☐ Locate and take over assigned locomotive.
  - ☐ Verify locomotive number matches assignment card / FRED or wiFRED.
  - ☐ Ensure correct locomotive assignment roster (*Lokumlaufzettel*)
- ☐ Perform **function test** of locomotive:
  - ☐ FRED functional / wiFRED powered on.
  - ☐ Headlight on, if required for operations.
  - ☐ No headlight shining into train consist.
  - ☐ Horn / sound (if equipped) tested.
  - ☐ Rolling test (brake test) performed.
  - ☐ Locomotive runs smoothly.
- ☐ Report **ready for departure** to station.

### Section 2: During Duty

- ☐ **Maintain full concentration during the run.**
- ☐ **Observe all signals and signs**. In simple terms:
  - ☐ Red / horizontal arm = **Stop!**
  - ☐ Green / diagonal arm up = **Proceed**
  - ☐ Green-yellow / two arms up = **Proceed at reduced speed**
  - ☐ Switching = **very slow speed**.
- ☐ Even on "Proceed", **keep the train ahead in view**.
- ☐ **Stop immediately if any operational hazard is visible** (e.g. derailed axles, train separation, obstacles on the track).
- ☐ **Maintain the speed** specified in the working timetable, by signal indication, or as instructed by the Train Dispatcher (*Zugleiter (Zl)*) / Traffic Contorller (*Fahrdienstleiter (Fdl)*)
- ☐ **Perform the tasks specified in the employee timetable** (switching, coupling/uncoupling), if necessary under the guidance of a Train Conductor (*Zugführer (Zf)*) or Yardmaster (*Rangierleiter (Rl)*).
- ☐ **Obtain instructions** from local personnel (train dispatcher / *traffic controller*, station supervisor, yardmaster).

### Section 3: Completion

- ☐ **Spot locomotive and cars at assigned location** (e.g. loading track, siding).
- ☐ **Spot locomotive and baggage car as assigned**; in terminals or staging: run engine around train as required.
- ☐ **Turn off sound** (if active) and **lights.**
- ☐ **For cable FRED: unplug**.
- ☐ **For wiFRED:** switch to **OFF**.
- ☐ **Return FRED / wiFRED at designated location**.
- ☐ **Report any faults or problems** (track, switches, locomotive, cars, signals, FRED, etc.).
- ☐ **Return employee timetable** (with reverse side facing up) to designated tray.

**Tip: Calibrating Scale Speed (from Jörg Lammerschmidt)**

An important operational speed is 40 km/h, the permitted speed through standard turnouts in diverging direction.

In scale terms: a 2-axle boxcar (*G-Wagen*) passing a reference point (signal, module interface, etc.) should take one second to pass at 40 km/h. This rule applies across all modeling scales.

Count *"one-and-twenty"* — about one second. Repeat several times to develop a feel for the correct throttle notch and realistic scale speed.

# TRAIN CREW
## Part 2: Train Conductor

**Role:** The Train Conductor (*Zugführer (Zf)*) is responsible for the safe and proper execution of the train operation.

**Duties and Responsibilities:**
- Overall responsibility for the train, especially operational safety.
- Preparation and inspection of the train (car order, brake readiness, end-of-train device).
- Giving the departure order (signal Zp 9) to the engineer.
- Serving as the interface between train dispatcher / traffic controller, engineer, and other train crew.
- Supporting the engineer in switching operations and operational handling.

***Note:*** *On trains without a designated Train Conductor, the Locomotive Engineer assumes these duties in dual role.*

### Section 1: Preparation
- ☐ **Route knowledge of the arrangement**; unfamiliar lines acquired by **walkaround**.
  - ☐ Locations of railway facilties e.g. stations (*Betriebsstellen*).
  - ☐ Signal locations.
  - ☐ Locations of manually-operated facilities (e.g. level crossing activation/deactivation).
  - ☐ Boundaries of sections operated under dispatcher-controlled operation (*Zugleitbetrieb (ZLB)*) (see App. 2: Dispatcher-Controlled Operation I)
- ☐ **Read the employee timetable carefully** — espcially arrival / departure times and train movement reports (*Zuglaufmeldungen*) (see App. 1: Employee Timetable).
- ☐ **Arrive at the duty location on time**.
- ☐ Collect **car cards for the train**.
  - ☐ Locate and inspect the train consist.
  - ☐ Verify car numbers match the car cards.
  - ☐ Verify illustrations on car cards match the rolling stock.
  - ☐ Ensure every car has a waybill / empty car order.
  - ☐ Verify car types match assigned loads or requests.
  - ☐ Confirm order and grouping of cars per freight train make-up (formation) rules (*Güterzugbildungsvorschriften (GZV)*).
  - ☐ Confirm all required cars are present.
  - ☐ Sort car cards according to direction of travel.
  - ☐ Check proper coupling condition.
  - ☐ Comply with technical rules of train make-up (e.g. end brake car, cars coupled only by load, etc., if relevant to the meet).
  - ☐ Ensure train has end-of-train device (*Zugschluss*) (if relevant to the meet).
- ☐ Take along **uncoupling tool**.

### Section 2: During Duty
- ☐ **Perform tasks per employee timetable** (set-outs / pick-ups, switching, train movement reports (*Zuglaufmeldungen*)), possibly under direction of the engineer.
- ☐ **Obtain instructions** from local personnel (train dispatcher / traffic controller, station supervisor, yardmaster).
- ☐ Carry **connection key (*Anschlussschlüssel*)** or **line key (Streckenschlüssel) (for dispatcher-controlled operation (*Zugleitbetrieb (ZLB)*)**, if applicable.
- ☐ **Restore all locally-operated switches to normal position!**

### Section 3: Completion
- ☐ Return **car cards at the destination**.
- ☐ Return **connection key (*Anschlussschlüssel*)** or **line key (Streckenschlüssel)**, if applicable.
- ☐ Report **any faults or problems** (track, switches, locomotives, cars, signals, etc.).
- ☐ Return **employee timetable** (with reverse side facing up) to designated tray.

**At the end of each call: say "End" (Ende) (Bundesbahn/Deutsche Bahn) or "End" (Schluss)" (Reichsbahn).**

***Note:*** *The use of these specific train report procedures (marked *) must be agreed upon at the meeting.*

### Section 2: Train Reports for Switching Movements (Rangierfahrten)
#### Structure of Train Movement Report

**At the start of every call:**

**Dispatcher: „***Dispatcher* ***(Control Office).“***
**Conductor: „*(Station),* *Conductor* *(Name).”***

---

**Switching Request (Ra) – Switching Permission (Re):**

**Conductor *„Train report.*** *May* ***train (number) switch in (station)?“***
**Dispatcher: „***Switching in (station) is permitted.“*
**Conductor: „***I repeat …* ***[repeats exact wording of Dispatcher]“***
**Dispatcher: *„Correct.“***

OR: ***„No, wait.*** *(state reason)“*
Once reason is cleared:
switching permit must be re-issued.

---

**Staging Report (As):**

***Conditions:*** *(a) Switching move placed in siding, (b) Main track is clear, (c) Conductor holds the station key.*

**Conductor: *„Train report. Train (number)*** *staged in* ***track (number)*** *at* ***(station).“***
**Dispatcher: „***I repeat …* ***[repeats exact words of Conductor]”***
**Conductor: *„Correct.“***

---

**End of Switching Movement:**

***Conditions:*** *a) All switches and derails in normal position and locked, (b) No cars left on the main track, (c) Entry route clear for following train*

**Conductor: *„Train report. Switching movement in (station) completed.“***
**Dispatcher: „***I repeat …* ***[repeats exact words of Conductor]”***
**Conductor: *„Correct.“***

Switching may also be ended by giving a staging report (As).

---

**At the end of each call: say "End" (Ende) (Bundesbahn/Deutsche Bahn) or "End" (Schluss)" (Reichsbahn).**

### Section 3: Further Reading (only in German)

For all who wish to deepen or refresh their understanding of Train Order (Block Signalling) Operation (*Zugmeldebetrieb (ZMB)*) and Dispatcher-Controlled Operation (*Zugleitbetrieb (ZLB)*):

- **Rulebooks (DB InfraGO):**
  - **Ril 408 – Operating Rules (Fahrdienstvorschrift), Handbook 40820**
  - **Ril 436 – Conducting Train and Shunting Movements in Train Control Operation (ZLB)**
  - **Ril 438 – Operating Rules FV-NE**

- **Online Resources::**
  - Website **TF-Ausbildiung**
  - Website Kleinbahnwiki > **Kleinbahnwiki > Betrieb**
  - YouTube:
    - „**Zugmeldeverfahren — eingleisige Strecke**“ by BlackForest_Tf
    - „**Zugleitbetrieb V4**“ by S. Hoffmann

- **Books:**
  - Hausmann, Anita / Enders, Dirk H.: *Grundlagen des Bahnbetriebs*, 3. Auflage, 2017, Bahn Fachverlag, ISBN 978-3-943214-16-1
  - Jelitto, Marcel: *Triebfahrzeugführer im System Bahn*, 1. Auflage, 2023, Bahn Fachverlag, ISBN 978-3-943214-37-6

# TRAIN CREW
# App. 2: Dispatcher-Controlled Operation I

**Dispatcher-Controlled Operation** (*Zugleitbetrieb (ZLB)*) is a system in which train movements on a non-signaled, lower-density line (equivalent to "dark territory" on North American railroads) are governed by a Train Dispatcher (*Zugleiter (Zl)*). The Dispatcher is responsible for traffic on the controlled line, supervises safe and coordinated train movements, issues clearances, and coordinates meets, shunting moves, and train operations.

**Persona:** The Train Dispatcher (*Zugleiter (Zf)*) has full responsibility for the safe and orderly execution of operations on the line.

**General Notes on Reporting Movements:**
Every message must be repeated by the receiver. Begin with the words "*I repeat …*", and repeat exactly what was heard (not what was meant). If the repetition is correct, the sender confirms with "*Correct.*" If incorrect, interrupt immediately and correct.

***Hinweis:*** *The exact wording given below is mandatory.*

## Section 1: Train Reports in Train Movements (Zugfahrten)

### Structure of Train Movement Report

**At the start of each call:**

**Dispatcher: „***Dispatcher* ***(Control Office).“***
**Conductor: „*(Station),* *Conductor* *(Name).”***

---

**Proceed Request (Fa) – Proceed Permission (Fe):**

***When:*** *Earliest* ***10 minutes before*** *intended departure.*
***Conditions:*** *(a) Train is ready to depart, (b) All switching complete, (c) Main tracks are clear, (d) Switches and derails in normal position and locked.*

**Conductor: „*Train report.* *May* *train (number)***
*proceed to* ***(station)?“***

**Dispatcher: „Train (number)** may proceed to **(station).**
(if applicable: **Stop at trapizoid board.**)
(if applicable: **Meet train (number) there).“**

**Conductor: „***I repeat …* ***[repeats exact words of Dispatcher]“***

**Dispatcher: „*Correct.“***

OR: ***„No, wait.*** *(state reason)“*
Once the reason is cleared:
a new authority must be issued.

---

**Arrival Report (Ak):**

***Conditions:*** *(a) Train fully entered track, (b) Arrival track clear to train's rear, (c) If present, home signal returned to Stop.*

**Conductor: „*Train report.***
***Train (number)*** *in* ***(station).“***

**Dispatcher: „***I repeat …* ***[repeats exact words of Conductor]”***

**Zf: „*Correct.“***

---

**Staging Report (As):**

***Conditions:*** *(a) Train is set off in siding, (b) Main track is clear, (c) Conductor holds the station key.*

**Conductor: „*Train report. Train (number)*** *staged*
*in* ***track (number)*** *at* ***(station).“***

**Dispatcher: „***I repeat …* ***[repeats exact words of Conductor]”***

**Conductor: „*Correct.“***

---

**** Departure / Clearance Report (Ve/Vm):**

***When:*** Given by responsible conductor or local employee, no later than 10 minutes after departure.
***Conditions****: (a) Train has left the station, (b) Rear of train passed home signal or distant board of opposite direction, (c) Arrival route lined for following train..*

***Conductor: „Train report. Train (number)***
*has left* ***(station).“***

**Dispatcher: „***I repeat …* ***[repeats exact words of Conductor]”***

**Conductor: „*Correct.“***

---

**** Route Secured Report (FsE/Fsi):**

***Conditions:*** *(a) Route is clear, (b) Conflicting shunting moves have ended, (c) Switches and flank protection devices (e.g. derails) properly set and secured..*

**Conductor: „*Train report. Route*** *for* ***train (number)***
***into track (number) secured.“***

**Dispatcher: „***I repeat …* ***[repeats exact words of Conductor]”***

**Conductor: „*Correct.“***

---



# TRAIN CREW
# Part 3: Yardmaster

**Persona:** The Yardmaster (*Rangierleiter (Rl)*) is responsible for the safe execution of switching (shunting) movements.

**Duties and Responsibilities:**
- Directing and supervising all switching movements in stations, yards, and industry sidings.
- Coordinating all personnel involved (e.g. engineer, switchmen).
- Issuing switching signals and instructions..

***Note:*** *During switching operations,* the *Train Conductor* assumes the *duties of the Yardmaster in a dual role, if no separate player or local switch engine is assigned as Yardmaster.*

## Section 1: Switching Duties

- ☐ **Read the employee timetable carefully** — pay attention to assigned duties and train movement reports (*Zuglaufmeldungen*) (e.g. which cars to set out or pick up).
- ☐ **Conduct a site inspection before each switching operation**:
  - ☐ Local knowledge acquired from the station data sheet (*Bahnhofdatenblatt*).
  - ☐ Signals, limit of switch (shunt) boards (signal Ra 10), derailers (Gleissperren), etc.
  - ☐ Locations of manually-operated facilities (e.g. switches returned to normal).
- ☐ Plan **switching moves** in advance, taking into account:
  - ☐ **Purpose:** loading, unloading, storage, etc.
  - ☐ **Destination:** from where (track / siding) to where (track / siding).
  - ☐ **Special considerations:** multiple moves, mainline occupation, other train movements, etc.
  - ☐ **Runaround moves:** which cars need to be run around, where, and when?
  - ☐ **Efficiency:** how can moves be combined to minimize switching runs?
  - ☐ **Passenger cars:** avoid switching movements with occupied passenger cars.

## Section 2: With the Locomotive Engineer

- ☐ **Before and during switching movements**:
  - ☐ Ensure the route is clear.
  - ☐ Secure road crossings, if required.
  - ☐ Observe maximum switching speed of 25 km/h (slow).
  - ☐ Do not pass the stop (limit of switch (shunt)) board (Signal Ra 10) except with permission from the train dispatcher (*Zugleiter (Zl)*).
- ☐ Uncouple cars and **move them to assigned spot**.
- ☐ Collect cars and **couple them to the train in correct order**.
- ☐ **Before departure: perform rolling (brake) test**.

## Section 3: With the Conductor

- ☐ Carry **connection** or **line key (for dispatcher-controlled operation (*Zugleitbetrieb (ZLB)*)** for switches/derailers, if applicable.
- ☐ Obtain **switching permission** (*Rangiererlaubnis (Re)*) — in dispatcher-controlled operation (ZLB), the entire operational point is usually blocked for switching.
- ☐ Deliver car cards **to destination / industry**.
  - ☐ Collect car cards for picked-up groups.
- ☐ **Verify train formation according to working timetable and car cards**:
  - ☐ Each car card includes a waybill.
  - ☐ Car numbers, types, order, and grouping are correct.
  - ☐ Car cards sorted in direction of travel (re-sort if train changes direction).
- ☐ Check **couplings**.
- ☐ **Report end of switching operation**.
- ☐ **Return all locally operated switches to their normal position!**
- ☐ **Return connection or line key**, if applicable.

# TRAIN CREW
# App. 1: Employee Timetable

This quick guide helps you identify the essential information in a German railway employee timetable (*Buchfahrplan (Bfpl)*) and develop a basic understanding of its structure and application.

It explains the core elements and principles of the timetable. Depending on the FREMO meet, the format may vary slightly – but the key information is nearly always included.

**Fig. 1: Employee Timetable from a FREMO Meeting – Era III / Deutsche Bundesbahn (Federal Railway of Germany)**

**Zugdienstbeginn 07:30** **Ende 14:00**
**Ng 8353** **Soest – Nordhalben** (1)

**Tfz:** **BR 64 / 98.8** (2)
**Last:** **20 Achsen**

**Zugbildung** (3)

| Gruppe | Von | Nach | Bemerkung |
|---|---|---|---|
| 1 | Soest | Nordhalben | Pwg |
| 2 | Soest | Kirchlauter | In Königsberg Ü Üb 15921 |
| 3 | Soest | Rothhausen | In Königsberg Ü Üb 15924 |
| Ab Königsberg | | | |
| 1 | | | Pwg |
| 2 | | | Alle Richtungen |

| 1 Lage der Betriebsstelle km | 2 Höchstgeschwindigkeit km/h | 3 Betriebsstelle | 4 Trapez | 5 Ankunft | 6 Abfahrt | 7 Kreuzung | 8 Überholung | 9 Zugmeldungen |
|---|---|---|---|---|---|---|---|---|
| 0 | 50 | Soest | | | 08:33 | | | |
| 0 | | Teichholzhagen Abzw | | 08:39 | 08:40 | | (4) | Fdl Fa |
| 3,6 | | Rothhausen | (5) | | 08:46 | | | |
| 6,8 | | Königsberg | 3364 | 08:51 | 11:55 | 3364 | (6) | Zf Ak, Fa f 3364<br>Ak, Fa |
| 9,4 | | Kirchlauter | | | 12:00 | | | |
| 11,2 | | Hölle | | | 12:04 | | | |
| 14,1 | | Nordhalben | | 12:09 | | | (7) | Zf Ak |

*Source: Andreas Reinhard*

Fdl Traffic Controller (Fahrdienstleiter)
Zf Conductor reports (train movement report) for **own train number**
Zf f (Nr.) Conductor reports (train movement report) for **another train number**

## Section 1: What is in the header of an employee timetable under Dispatcher-Controlled Operation (Zugleitbetrieb)?

1. **Train class + train number** – e.g. Ng (local freight) 8353**. Route of the train.**
2. **Locomotive type** (*Triebfahrzeug (Tfz)*) and **train load** (*Last)* / length – given either as train length in centimeters or as axle count (incl. baggage car if present).
3. **Train make-up (formation)** (*Zugbildung*) – listed in car groups, with origin and destination, and possibly further notes (e.g. freight type, industry sidings, special handling).

## Example Tasks (Points 4–7) for the Conductor

The track section between ***Teichholzhagen Abzw.*** *(Junction)* and ***Nordhalben*** is operated under Dispatcher-Controlled Operation (*Zugleitbetrieb (ZLB)*). The Traffic Controller (*Fahrdienstleiter (Fdl)*) at Teichholzhagen Abzw. acts as Train Dispatcher (*Zugleiter (Zl)*).

***Note:*** *Repetitions of train movement reports (Zuglaufmeldungen) are not shown in the example dialogues below.*

**A: Proceed Request (Fa) – Proceed Permission (Fe) (see Point 4)**

- The Dispatcher issues the Proceed Permission (*Fahrerlaubnis Fe*)) for train 8353 before departure.

**Fa ➔ *Conductor 8353: „Train report. May train 8353 proceed to Königsberg? “***

**Fe ➔ *Dispatcher Teich.: „Train 8353 may proceed to Königsberg. Meet train 3364 there.“***

**B: Train Meet with the 2nd Train at Königsberg (see Point 5)**

- In this example, train 8353 is the first train in the meet.
- Column 7 notes the scheduled meet with train 3364.
- Train 3364 waits at the trapezoid board (Signal Ne 1 *Trapeztafel*) outside Königsberg station.
- After train 8353 halts at Königsberg, the (Train) Conductor reports its arrival.

**Ak ➔ Conductor 8353: *„Train report. Train 8353 in Königsberg.“***

Afterward, the Conductor aligns the turnout for the opposing train (3364) and authorizes its entry with Signal Zp 11 (“Come”).

**C: Train Report for the 2nd Train at Königsberg (see Point 6)**

- After the second train (3364) halts at Königsberg, the Conductor of the first train (8353) reports the arrival of train 3364.
- At the same time, he requests Proceed Permission (*Fahrerlaubnis (Fe)*) for train 3364 and passes it on to that crew.

**Ak + Fa ➔ *Conductor 8353: „Train report. Train 3364 in Königsberg. May train 3364 proceed to Teichholzhagen Jct.?“***

**Fe ➔ *Dispatcher Teich.: „Train 3364 may proceed to Teichholzhagen Jct.“***

Before train 3364 departs, the Conductor of train 8353 sets the turnout for its departure, and after it has left, restores the switch to normal.

**D: Proceed Request (Fa) – Proceed Permission (Fe) for Onward Movement (see Point 6)**

- Before departure, the Conductor of train 8353 restores the turnout to normal.
- Then he requests permission for his own train to continue.

**Fa ➔ *Conductor 8353: „Train report. May train 8353 proceed to Nordhalben?***

**Fe ➔ *Dispatcher Teich.: „Train 8353 may proceed to Nordhalben.“***

**E: Arrival Report (Ak) at Nordhalben (see Point 7)**

- The Conductor of train 8353 reports to the Traffic Dispatcher upon arrival at Nordhalben.

**Ak ➔ *Conductor 8353: „Train report. Train 8353 in Nordhalben.“***

**Fig. 2: Employee Timetable from a FREMO Meeting – Era IV / Deutsche Bahn (German Railway)**

**Zugdienstbeginn 06:00** (1) **Ende 07:29**
**Dgs 47383** **Schattenbach – Rheinfort-Kapellen**

**Tfz:** **BR 218**
**Last:** **max. 175 cm inkl. Lok** (2)

**Zugbildung** (3)

| Gruppe | Von | Nach | Bemerkung |
|---|---|---|---|
| 1 | Schattenbach | Rheinfort-Kapellen | Container |

(4)

| 1 Lage der Betriebsstelle km | 2 Höchstgeschwindigkeit km/h | 3 Betriebsstelle | 4 Ankunft | 5 Abfahrt | 6 Bemerkungen |
|---|---|---|---|---|---|
| 58 | 80 | Schattenbach | | 06:41 | Container nach UNH einstellen1 |
| 64,1 | | Hohenrhein | | 06:45 | |
| 66,6 | | Harriehausen | | 06:47 | |
| 70,2 | | Rheinfort-Kapellen | 06:52 | | Wagengarnitur geht über auf Rheincargo DE18; Lok geht über auf Containerzug aus UNH ausstellen1 |

*Source: Michael Gruß*

## Section 2: What is in the header of an employee timetable with Train Order (Block Signalling) Operation (Zugmeldebetrieb)?

1. **Train class + train number** – e.g. Dgs (fast through freight) 47383. **Route of the train.**
2. **Locomotive type** (*Triebfahrzeug (Tfz)*) and **train load** (*Last)* / length – given either as train length in centimeters or as axle count (incl. caboose or baggage car if present). In this working timetable, it includes the locomotive.
3. **Train make-up (formation)** (*Zugbildung*) – listed in car groups, with origin and destination, and possibly further notes (e.g. freight type, industry sidings, special handling).

## Example Task under Train Order (Block Signalling) Operation (Zugmeldebetrieb)

The track section between ***Schattenbach and Rheinfort-Kapellen*** is a single-track main line. The Traffic Controller (*Fahrdienstleiter (Fdl)*) at Schattenbach offers his train to the Traffic Controller (*Fahrdienstleiter (Fdl)*) at Rheinfort-Kapellen.

**A: Offering – Acceptance (see Point 4)**

- The Controller at Schattenbach offers train 47383 to the Controller at Rheinfort-Kapellen.

**Controller (Sc) ➔ „Train report. Will train 47383 be accepted?”**

**Controller (Rh) ➔ *„Train 47383, yes.“***

After the Controller at Rheinfort-Kapellen accepts the train, the Controller at Schattenbach then clears the departure signal (if present) for train 47383 and gives the departure order.


FREMO Version 1.0 / October 2025
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