

## Remote/Digital Factory Acceptance Tests (FATs)

VOSSLOH'S REMOTE INSPECTION SOLUTIONS FOR POINTS AND CROSSINGS\* (LIVE VIDEOCONFERENCE OR REMOTE DOCUMENTATION SENDING)

\*available for Point Machines as well, either with turnouts, or taken independently

# Live Remote Inspections



## GLASSES WITH ON-BOARD CAMERA FOR REMOTE VALIDATION VIA VIDEOCONFERENCE

- / The site operator wears glasses with an onboard camera that transmits live, using an integrated microphone and headset that allow real-time communication with the customer remotely
- / An interactive tablet is used to share the information sent by the glasses to the customer
- / The connection between the operator and the customer is made through a videoconference

**Greener  
Faster  
Smarter**

### / References:

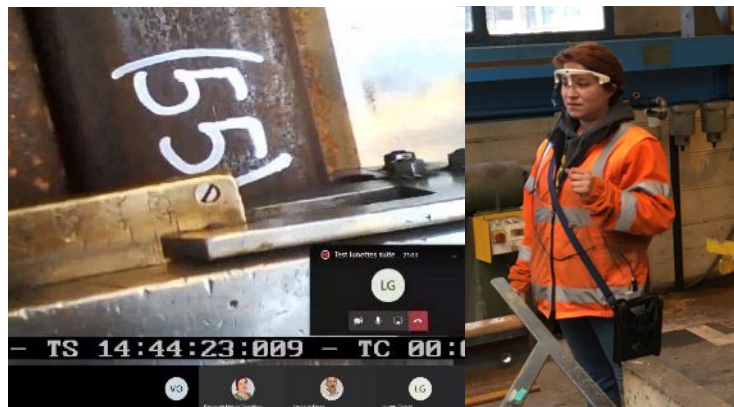
France, Belgium, India, Hong Kong...

### **Just like the customer is directly on site**

In real time, the customer follows the factory acceptance procedure for switches and crossings, interacting directly or through a third party throughout the auditing process.

### **Applications**

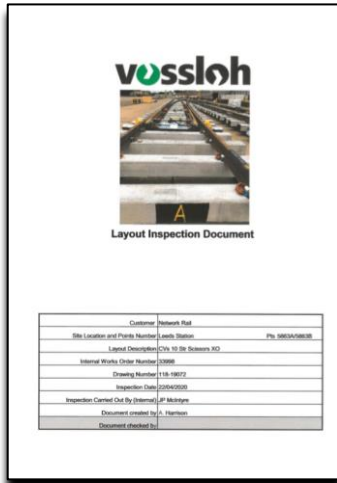
- / Inspection, Monitoring and Validation of Switches and Crossings, Point Machines, and Associated Equipment
- / Remote Maintenance and Technical Support
- / Distance Learning and Training



### **ADVANTAGES**

- ▶ Remote digital inspection (webcam and microphone on glasses + videoconference) for validation in real conditions
- ▶ Customer and operator interactivity
- ▶ Monitoring with measurements and real-time images
- ▶ Saves time and reduces operating costs

# Remote Inspections

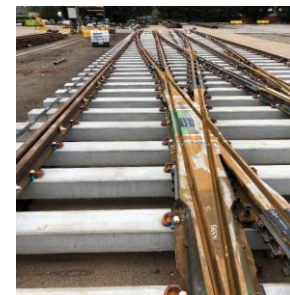
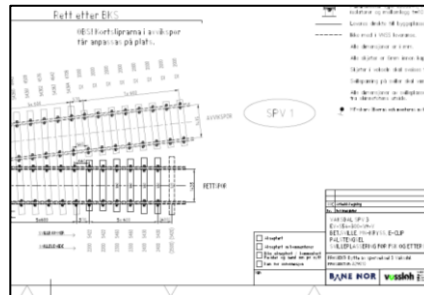


**WE ARE ABLE TO OFFER REMOTE/DIGITAL FATs TO ALL CUSTOMERS**

- / Video footage of the turnout is supplied demonstrating switch operation and any specific requests from the customer
- / Additional photographs of the turnout is supplied covering all key areas along with any specific requests from the customer
- / Any additional customer documentation can also be completed

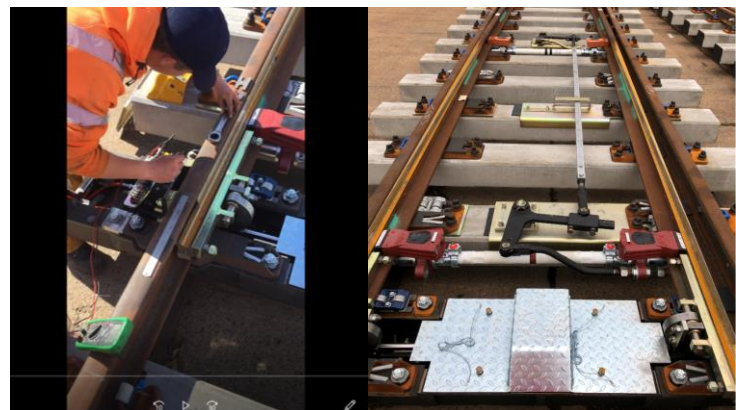


**The standard Vossloh inspection document is provided on the FAT date**



## Documentation

- / Checklists proving that the turnout has been built according to customer specifications + Drawings of the turnout
- / Material list, Delivery specifications



## ADDITIONAL FEATURE

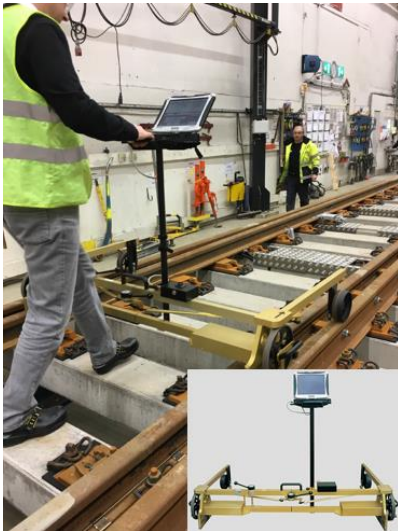
- ▶ A Facetime/Digital call can also be offered to allow a walkaround of the turnout to be conducted in real time along any questions discussed.

## / References:

Great-Britain, Sweden, Norway...

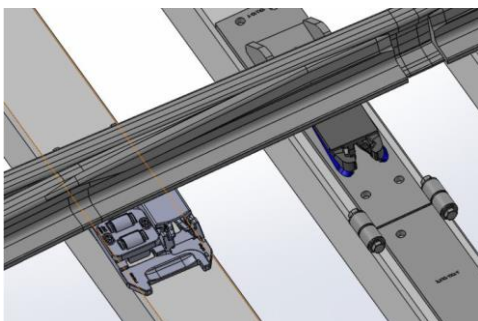


# Digitized Inspections for Customized Asset Management



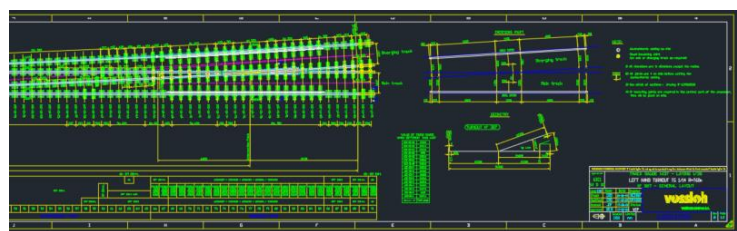
## MEASUREMENTS WITH DIGITAL TROLLEY ALLOWING ACCURATE DATA COLLECTIONS

- Digitized and customized checklists for further use in customers different data bases intended for asset management, inspection and maintenance purposes
- Drawings are created in 3D and BIM-models are available



Data transferred to the customer in a digital way enabling further use under turnout lifetime

vossloh		Vekselkontrollrapport		Kundorder nummer: 1363733		Provblad nr: 033-2020																			
Enkelveksel		TO nummer: 1049775		Radsnitning		Kurvveksel																			
Stad	Vekselnr	Plaggringsnr	Tag nr	Radnummer	Drivmekanism	Usp	Nip																		
Vaksdal	SPV 3	3-110148		300-1.9-V, S54	Palstengsel																				
Målepunkt	a	b	c	C1	e	e1	f1	f2	f3	f4	g	g1	h	h1	j	j1	r	r1	t	t1	u	u1	d	d1	
Normalvärdi	1435	1436	1435	1435	1435	59	59	59	59	39	39	39	44	44	1396	1396	1435	1435	1435	1435	1435	1435	1435	1435	1435
Toleranser	+3/-1	+3/-1	+3/-1	+3/-1	+3/-1	+2/-1	+2/-1	+2/-1	+2/-1	+1	+1	+1	+1,5	+1,5	0/+2	0/+2	+3/-1	+3/-1	+3/-1	+3/-1	+3/-1	+3/-1	+3/-1	+3/-1	
Oppmått	1435	1436	1435	1435	1435	61	60	57	57	37,3	37,3	37,3	42,8	42,8	1376	1376	1407,9	1407,9	1407,9	1407,9	1407,9	1407,9	1407,9	1407,9	
Avvik	0	0	0	0	0	2	1	0	0	0,3	-0,3	-1,2	-1,2	0	0,2	1,9	1,9	1,2	1,4	0,8	2,6	0,2	0,2		
Målepunkt	x1	x2	x3	x4	v1	x	x1	y	y1																
Normalvärdi	80	80	80	80	169	169	58	58	1435	1435															
Toleranser	+2	+2	+2	+2			>	>	+3/-1	+3/-1															
Oppmått	77	80	79	80	173	173	55,4	55,4	1439	1439															
Avvik	1	0	-1	0	1	1	1,4	1,4	-1,1	-1,1															
Märkning av VT neutraläge: <input checked="" type="checkbox"/>								TA nr: 603/604								Årsgring skickas: 0/1									
Isoleringskavars placering sett från V till H								Ek nr: 483								Sky/betäckning: 0/0									
1 Nr: 366/114								Ledeskinne nr: 654/622								Drivmontage: 0/0									
2 Nr:								Växelarme L:								Mellanri charge nr.: L:									
3 Nr: 366/113								Mellanri charge nr.: L:								Mellanri charge nr.: L:									
4 Nr:								Mellanri charge nr.: L:								Farrli charge nr.: L:									
								Mellanri charge nr.: L:								Märkning sett nr / ext:									
Besiktigat dat: 2020-05-19								Bes.man: George M																	



## THE TURNOUT OF THE FUTURE

- Each Turnout\* will have its own digital data file during all its lifetime enabling optimized monitoring and costs savings

\*available for Point Machines as well, either with turnouts, or taken independently