

INTERFLON

VERSION 10.3



RAIL 

THE LATEST LUBRICATION AND IMPROVEMENT INSTRUCTIONS

**T1-25 Track, S&C and S&T
OLE1-5 Overhead Line Equipment
W1-5 Winter Preparation
H1-6 Hardware & Equipment**



MicPol ® is a registered trademark of Interflon B.V.
Interflon ® is a registered trademark of Interflon B.V.

About Interflon

Interflon MicPol[®] Technology

MicPol[®] is the signature technology in Interflon products. Developed in-house by our own team of scientists, MicPol[®] is what makes our products stand out from all others. So, how does it all work?

MicPol[®] stands for micronization and polarization. The solid lubrication particles in our products are micronized, meaning that they are reduced to a tiny diameter of between .05 to 15 microns.

This is what allows them to penetrate every tiny crack, crevice, and pore on the surface of an object. You cannot see these cracks with the naked eye, but MicPol[®] fills them and eliminates the resistance they would otherwise offer to anything moving over the surface.

MicPol[®] The Benefits

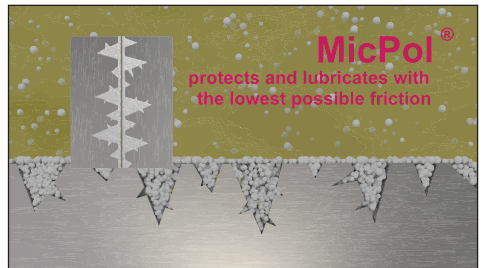
Greater Surface Penetration

MicPol[®] builds up a protective coating on the surface of the metal, penetrating deep into the asperities of the surface providing longevity.



Superior Protection

The MicPol[®] coating provides greater protection, providing a lubrication film with the lowest possible friction, virtually eliminating wear on moving parts.



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About Interflon

Interflon and the Rail Industry

The Interflon Rail Division has developed a number of innovative solutions for improving track performance and reliability. The application of Interflon's MicPol® coating and the use of a core range of products enables track equipment to be lubricated cleanly, with much less quantities and with longer intervals between relubrication. This not only provides a cleaner environment, it importantly allows equipment on track to be inspected for faults.

Interflon meet the Rail Division



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Sandwell & Dudley - LNWS Route



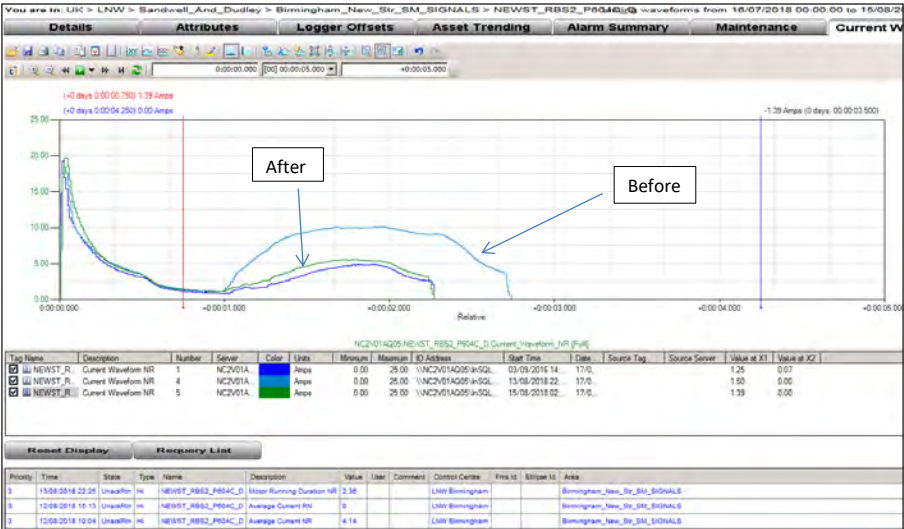
Bossie Ackerman - IME

Working with Interflon since 2015, since converting points to Interflon lubrication we have seen a 70% reduction in points failures in the area. Training was undertaken with all S&T and P-Way depo's to ensure correct application was carried out on track.

“ We had a period of 60 days with no switch failures, this is unheard of ”

Adam Round - Birmingham New Street

NS604 points are some of the worst we have due to water ingress and have had an RCM alarm on them for a while now. Last night the guys completed a full Interflon treatment as well as 13 week maintenance. There's still much work to be done on these (P-way issues, iron work replacement) but as you can see from the RCM traces and photo's they are vastly improved.



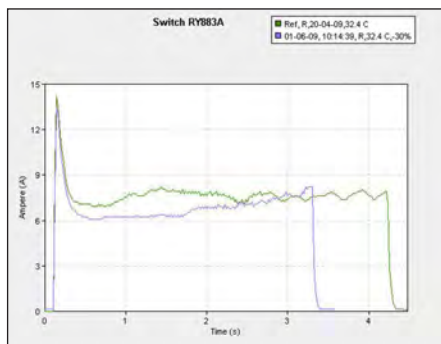
Rugby - LNWS Route



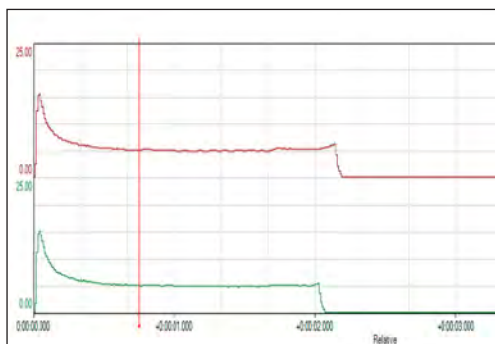
Symon Read - IME

Working with Interflon since 2008, we introduced Interflon to a Hy Drive set of points at Rugby which had been a major problem for many months.

After an hour of cleaning and lubrication with Interflon the Hy Drive points operated smoothly and carried on performing well ever since.



Clamp Locks identified as biggest failing asset, Interflon and simalube process introduced in 2015 as a masterclass, result as a DU went from 28th Nationally up to now 7th best (SAF).



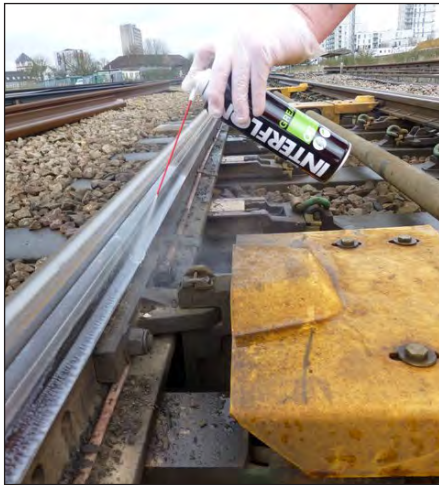
Derby - East Midlands Route



Phil Crowther - Track Section Manager

777pts and 778a pts at Sandiacre – TCC was a constant P8 failure site partly caused by the Sharpe radius and because of the shunting back and forth over these two sets of switches, this resulted in us having to plan the defect to be repaired every 2 to 3 months, however since we have been using the **OG Grease**, the failures have decreased to practically zero which is fantastic news.

Overall, on all of our 98 set of switches it seems we have had a significant reduction in P8 failures, which in my mind is because of us using the **Grease OG** spray on a weekly frequency.



Jason Wardell - IME Derby

Since the introduction of Interflon and proper application, points failures have reduced by 80%, at quarry sites, reduction from 1 failure per week to now no failures after 8 months.

Basingstoke - Sussex Route



Neil Denton - S&C Senior Reliability Engineer

8581 NR60 F points needing rectification work, on inspection this was the outcome. RH Stock rail is + 18mm the switch blade is -6mm All the 20mm Anchor bolts are loose. All Schwiag rollers require replacement. LH SSB clips require spinning. Worn LH Eplus clips. Heavy wear on Graphite Round inserts. Graphite slippers loose or missing. Sup Det rods are angled to TSB. back dive cranks are not set to correct orientation.



After part rectification work Rollers: Cleaned out threads, re-tap & reset rollers to correct specification. Replaced all Eplus clips LH & RH stock rails. Spun all LH & RH SSB clips,

- Interflon **Lube EP** was used to lubricate heel plates.
- Interflon **Lube TF** aerosol was used to lubricate all Schwiag rollers

RCM traces are vastly improved after part rectification work , however the application of **Lube TF** aerosol to the rollers gave the biggest improvement.

Neil Denton

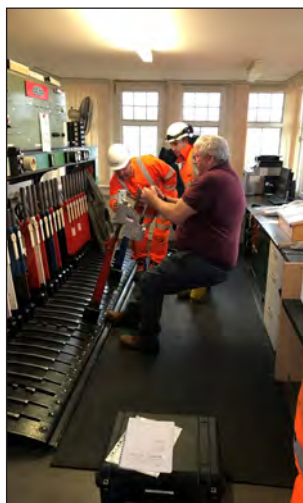
Scotland - Scotland Route



Alan Wright - Asset Engineer (R&E Signalling) Scotland

Since the application of Interflon dry film technology and the Flexilube Auto Lube system, we have seen an improvement in reliability and a reduction of failures on Scotland route.

It has improved the lubrication process associated with point operating equipment and shown a reduction of push/pull forces in our mechanical signal boxes, which as well as aiding with weather resilience has been a massive Health and Safety benefit for our operation staff.



We are currently rolling this out to all Delivery Units as best practice going forward. Having the Interflon and Flexilube team provide onsite knowledge and expertise has helped bring Scotland's overall service affecting failures down.

Doncaster - East Midlands Route



Rick Atkinson - STME

Since using Interflon LeafGuard OTR rail head cleaner through the Autumn period, we have seen a great improvement to track signal circuit failure due to leaf contamination. One neat application of OTR can last as long as 25 days with further reactivation of the cleaner only using water.

One 10 litre drum will cover one mile of a single track so very economical in use.



Before



After*

Interflon OTR Benefits;

- Product support
- Instant results with either product application or water application to reactivate
- Fast application time therefore reduction in track access
- No scrubbing required therefore no manual handling or servicing of machinery
- Reactivated with just water so works with the RHTT as it improves the product rather than destroys it.
- Can be applied and then only water carried for approx. 10 days.
- Carried on wheelset for best results locally

**Only water applied to reactivate and a train through the area. Its worth noting, this is a 7 day application of OTR and repeat applications of water when required.*

Steve Billam - MOM

Since the introduction of Interflon LeafGuard OTR, the RCM and flick reports have backed up the significant improvements made.

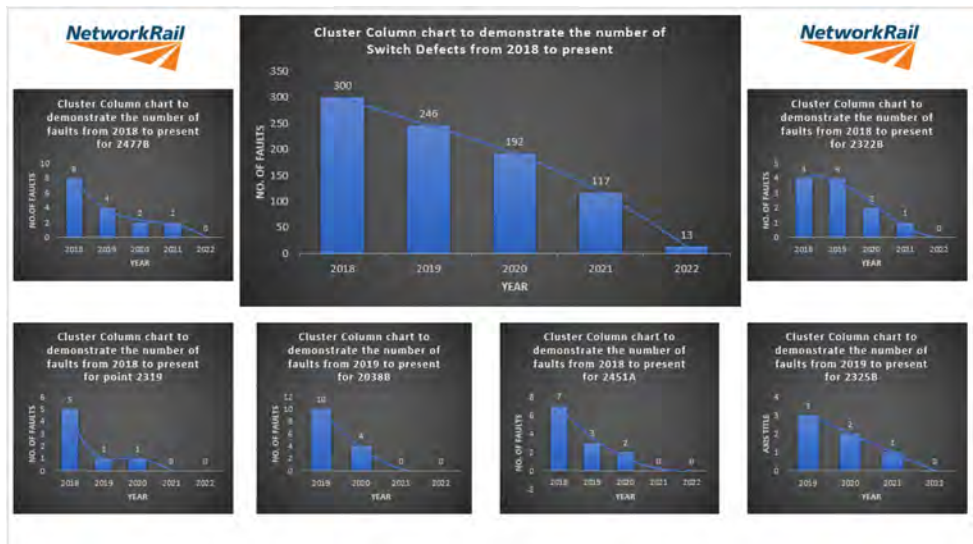
Doncaster - East Midlands Route



Josh Chambers - ATME

Since using Grease OG to lubricate the switch blades of S&C, we have seen a substantial reduction in S053 failures and the need to carry out weld repairs.

The route implemented the use of Grease OG early 2019, one end of switches in particular (2038B) was banned to facing moves multiple times, since using Grease OG there has been zero YTD.



The above graph shows the improvements made across the route.

Since the introduction of Interflon Grease OG back in 2019, our S053 switch blade failures have almost diminished.

Basingstoke - Wessex Route



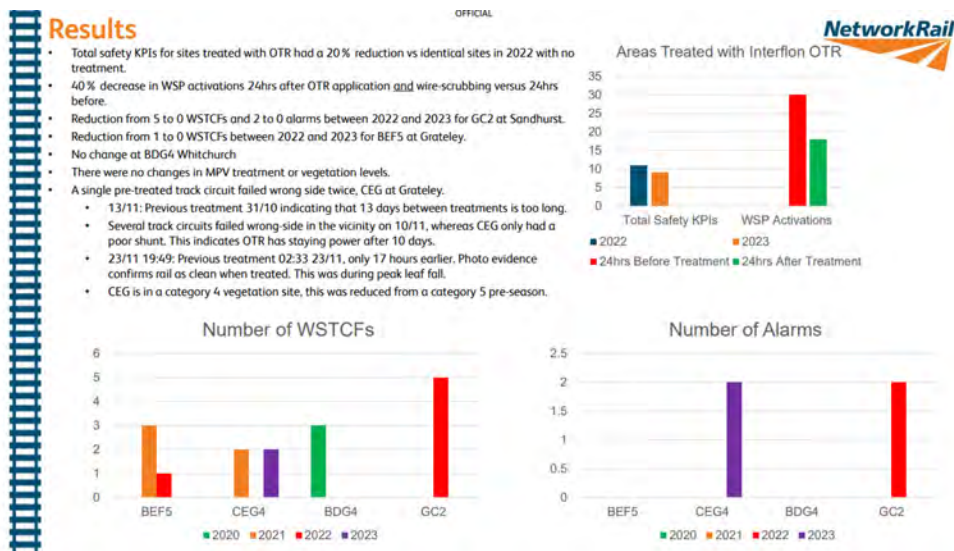
Tony Jackson

Interflon national LeafGuard OTR lead

During Autumn 2023, Wessex Route trialled the product at known high risk sites for Low Adhesion and Wrong Side Track Circuit Failure risk.

The sites selected using Interflon LeafGuard Clean OTR all performed better than previous years with a reduction in safety KPI's, despite 6 named storms.

The sites also outperformed locations not treated with Interflon LeafGuard Clean OTR. As the National Sponsor for the trail across the country, I had visibility of how Interflon LeafGuard Clean OTR performed across other Routes and they reported the same positive results on sites treated with the product.



Bristol - Western Route

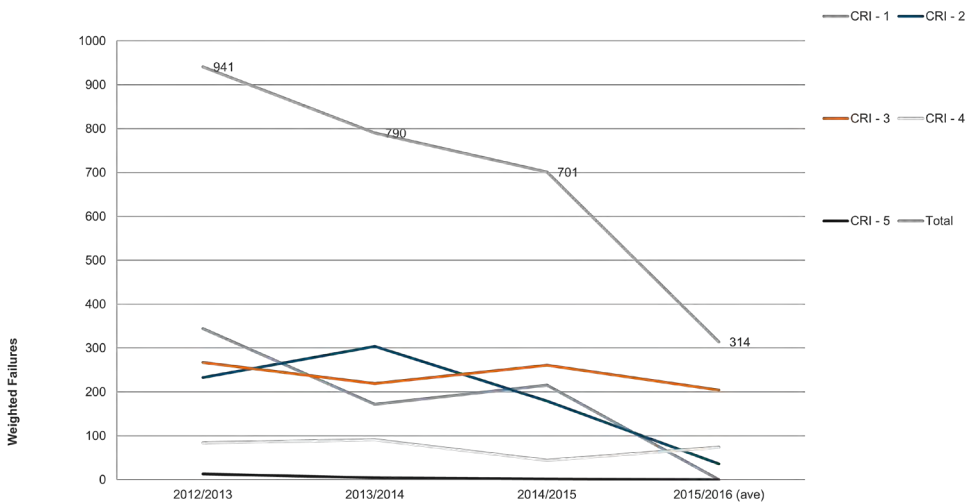


Dan Collins - TME

Interflon fully introduced for the TPOD 2015, result 627 less points failures in 2015/16 compared to 2012/13, saving £1.3 m over 3 years.

- £1.3 Million saved in failures over 3 years
- 627 less point failures in 2015/16 than 2012/13
- Reduced point failures by 80%
- Interflon fully introduced for the TPOD 2015, resulting in reliable points performance for the six week period.

Points (101) Weighted Failures



Norwich - Anglian Route



Steven Kaye - ASTME

Cromer 123 & 124 Points

Every year we experience points failures with leaves sticking to the slides. Since changing to Interflon no reported failures, patrol men report leaves are no longer sticking to slides and we have had no failures.



Our International Clients

	<ul style="list-style-type: none"> • Improving reliability of AD600 breathers • Improving lubrication practises of switches for TGV • Improving environment for better visual switch inspection • Reduce failure due to contamination of slide chairs • Improve weather resistance in wet and cold weather conditions 	
	<ul style="list-style-type: none"> • Improving reliability in freezing weather extremes • Eliminating rail pad delamination and effecting toe load of the clip • Extending lubrication intervals reducing maintenance re visits • Reduce failure due to contamination of slide chairs • Improving reliability of switch machines and locking devices 	
	<ul style="list-style-type: none"> • Improving flexture at the heel of the swingnose • Improving weather resilience after heavy rain fall and flooding • Extending lubrication intervals and the ability to apply in the wet • Improving issues around throw times and motor time out • Improving reliability of switch machines and locking devices 	
	<ul style="list-style-type: none"> • Improving switch performance and maintenance frequency • Improving weather resilience after heavy rain fall • Improving environment for better visual switch inspection • Allows for inspection of switch rectification work needed 	
	<ul style="list-style-type: none"> • Improving environment for better visual switch inspection • Reduce failure due to contamination of slide chairs • Improve weather resistance in wet and cold weather conditions • Improving speed of lubrication application around switches • Extending lubrication frequency from weekly to monthly 	
	<ul style="list-style-type: none"> • Improving reliability of signalling equipment • Extending lubrication intervals reducing maintenance revisits • Using Interflon grease MP1 to prevent plugging of grease nipples • Better lubricant weather resistance properties since using Interflon 	
	<ul style="list-style-type: none"> • Improving reliability around switches and detection • Developing automatic lubrication systems to signalling equipment • Working on the wheel flange lubrication fitted to trains • Improving environmental cleaning products for equipment 	

Track, S&T and S&C Lubrication Instructions





Slide Chair Lubrication

Full Clean Conversion Process

Day 1 (Conversion)

1. Remove old grease with metal scrapers from the slide chair and surrounding areas.
2. Spray the slide chair and surrounding area with **EM30+** and agitate with a nylon brush.
3. Complete cleaning by spraying slide chair with **Metal Clean** and wiping with a clean cloth. (repeat with the switch in the reverse position)
4. Spray under the switch rail with **Lube TF** Operate the switch several times to allow dirt to be removed from under the switch rail, then wipe the slide chairs with a cloth to clean.
5. Apply 4ml of **Lube EP** onto the slide chairs near the switch rail on the open side, then spread evenly over the slide chair using a long handle brush.(Repeat this application in the reverse position)

Within 7 Days (3 days if switch operates more than 150/day) **apply second coat.**

1. Wipe slide chairs with a clean cloth.
2. Apply 4ml of **Lube EP** onto the slide chairs near the switch rail on the open side, then spread evenly over the slide chair using a long handle brush.(Repeat this application in the reverse position)

MAINTENANCE (Every 4 weeks)*

1. **Do not use Degreaser!** - if cleaning is required use **Lube EP**, agitate with a nylon brush and wipe with cloth.
2. Apply 4ml of **Lube EP** onto the slide chairs at the foot of the switch rail, this only needs to be done in the position the switch rail is found. On roller layouts apply 2ml to both sides up to stock rail and spread with a long handled brush. * **Please see slide chair lubrication notes.**



Slide Chair Lubrication

Faster Conversion Process

Day 1 (Conversion)

1. Use metal scrapers to remove any thick grease from the slide chairs, rail and surrounding areas, (ensure this waste is removed from track), operate the switch into the reverse position and repeat this process until all slide chairs are clean.
2. Spray under the switch rail with **Lube TF**.
3. Once the slide chairs are prepared they can be coated with **Lube EP**.
4. Apply 4ml of **Lube EP** using a backpack or spray bottle onto each of the slide chairs, close to the switch rail.
5. Operate the switch to the reverse position, wipe the slide chairs with a cloth and apply 4ml of Lube EP to the slide chairs, close to the switch rail.

Then once every week for the next 8 weeks.

1. Wipe slide chairs with a clean cloth to remove dirt.
2. Apply **Lube EP** onto all Slide Chairs close to the switch rail foot, in the fixed position.

This will gradually remove the old lubricant and coat all surfaces with Lube EP

After this 8 week conversion process move onto the Maintenance schedule below:

MAINTENANCE (Every 4 weeks)*

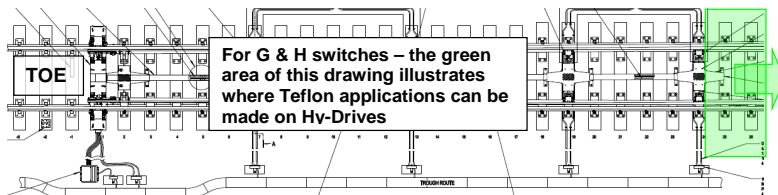
1. **Do not use Degreaser!** - if cleaning is required use **Lube EP**, agitate with a nylon brush and wipe with cloth.
2. Apply 4ml of **Lube EP** onto the slide chairs at the foot of the switch rail, this only needs to be done in the position the switch rail is found. On roller layouts apply 2ml to both sides up to stock rail and spread with a long handled brush. * Please see slide chair lubrication notes - T1n).



Slide Chair Lubrication

Slide Chair Lubrication Notes

1. Once above procedure has been completed, only use Interflon **Lube EP** to clean and lubricate Slide Chairs.
2. Remove contamination with a clean cloth.
3. Apply only 2ml of Interflon **Lube EP** in areas of high contamination.
4. The frequency of 4 weeks is only a guide, however for points at busy junctions this may need to be increased (Switches with more than 150 movements per day).
5. Suitable for all types of Slide Chair including plastic and graphite round inserts.
6. Hy-Drive switches length G&H must only be lubricated with **Lube EP** after the last SO unit, green area below shows the section to lubricate.



1. When Slide Chairs are heavy contaminated or sticky, spray with Interflon **Lube EP** and agitate with a nylon brush then remove contamination with a clean cloth, this rejuvenates the Slide Chair and improves coating performance
1. Approved for Hy-Drive, Clamp Lock, Mechanical, HW and Style 63.





Switch Tip Lubrication

The traditional 3 dabs of grease used has found to be very hit and miss, and can lead to grease being ineffective due to drop and lack of full coverage along the planed contact surface. It also prevents the rail being inspected for damage.

1. Remove thick existing layer of grease with a metal scraper, then spray area with Interflon **Metal Clean** and wipe clean with a cloth. **Power Wipes** can also be used for quick cleaning.
2. Spray Interflon **Grease OG** from the switch toe all the way along the planed contact face towards the heel, holding straw 6" from surface applying an even coat.
3. Ensure that no overspray coats the top of the rail by shielding it. If this does happen please spray some **Metal Clean** on a cloth a wipe and clean top of rail.
4. Remove all wipes and residue correctly.
5. Network Rail - Recoat switch tip with **Grease OG**, frequency as per the 053 inspection standard.

London Underground re-application as per instruction PM4 or S117 inspection process and work instruction for switch repair grind.

Grease OG leaves a clear, rust inhibiting and wear reducing coating which is also proven to extend the life of the switches.



Results are proving very positive with a reduction of 053 failures in and around the Derby route.

Interflon **Grease OG** (aerosol)



Full Acceptance PA05/05669 part1





Clamp Lock Lubrication

1. Remove old grease with metal scrapers from the body, slides and surrounding areas.
2. Spray the pin, lock arm and slides with **EM30+** and agitate with a nylon brush, in both open and closed positions.
3. Spray **Lube TF** into the lock arm, body, slides and pin. Operate the switch and rotate the pin to draw out contamination, then use a cloth to clean all surfaces.
4. Lightly spray **Lube EP** into cams, slides, body, lock arm and contact surfaces, then brush all surfaces using a long handle brush, not forgetting underside of slides. Wipe lock arm with a cloth to prevent contamination.

MAINTENANCE

1. Do not use Degreaser! - if cleaning is required use **Lube EP**, agitate with a nylon brush and wipe with cloth.
2. Spray **Lube TF** into the bush and pin, rotate the pin to draw out contamination, then use a cloth to clean all surfaces.
3. Lightly spray **Lube EP** into cams, slides, body, lock arm and contact surfaces, then brush all surfaces using a long handle brush, not forgetting underside of slides. Wipe lock arm with a cloth to prevent contamination.



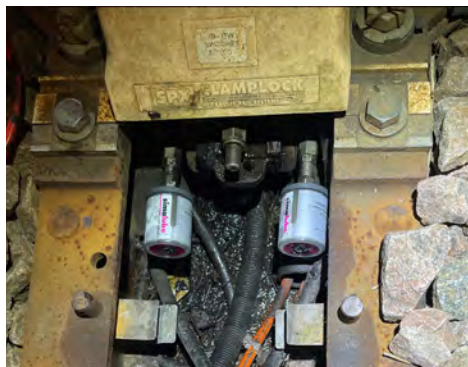
Acceptance PA05/05406 & PA05/05610





Auto-Lube Clamp Lock Lubrication

1. Connect the pipes to the flushing pump filled with **EM30+** and pump until pipes are clear. Lower the pipes to the ground so **EM30+** can run clear. Spray the pin, lock arm and body in the open and closed switch position, using **EM30+** in a spray bottle, agitate the **EM30+** with a stiff nylon brush before flushing with Interflon **Metal Clean**.
2. Remove the no-return valve at the body end, connect the pipe to the body, fill the pipe with Interflon **Lube EP** from a 1 litre bottle, keeping pipe low to the ground. To remove air locks tap pipe.
3. Connect no-return valve to the top of the pipe (lubricator end), fill no-return valve with **Lube EP**.
4. Slice off the nipple from the yellow plastic plug on the Simalube® lubricator (never remove yellow plastic plug from end of lubricator). Screw Simalube® unit into no-return valve and hand tighten.
5. Set the timer on top of the Simalube® to the desired setting using the allen key (6 or 12 months).
6. Fit unit into clip on the rail or inbearer.
7. See Simalube section for full details and kits available.

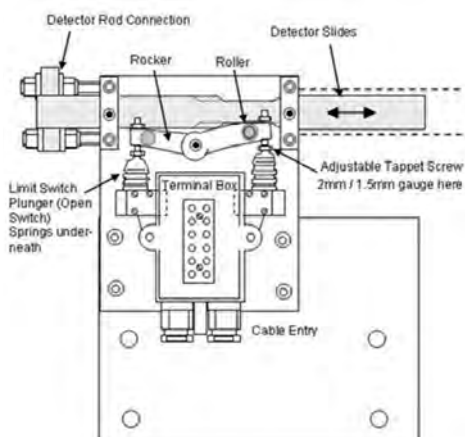




Supplementary Detector Lubrication

Clean all slides with **Metal Clean** and allow to evaporate.

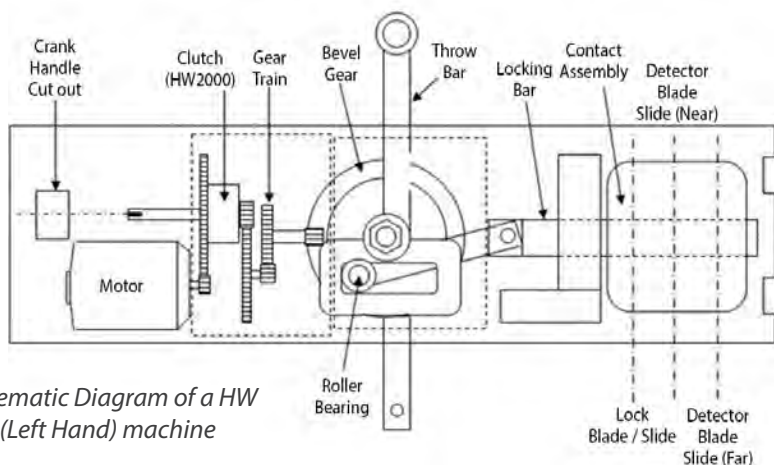
1. Lubrication & Final Checks
2. Lubricate using Interflon **Grease MP1** to the Rocker arm grease nipple.
3. Apply a small amount of Interflon **Lube EP** to roller spindles, tappets, and micro switch contact surfaces.
4. Apply a small amount of Interflon **Lube EP** onto the surfaces of detector slides and rocker springs.
5. Observe the apparatus for correct operation. Lubricate padlock, replace and secure detector lid.





HW Point Machine Lubrication

1. Clean away any dirt, old grease and contamination using **Metal Clean** allow 5 minutes to evaporate.
2. Spray guides and pivot points with **Lube EP** to release any remaining contamination, and wipe parts with a clean cloth.
3. Spray all gear teeth from 6" with a thin coat of **Grease OG**. (ref 3.14).
4. Spray the gear cover retaining screws with **Grease OG** then replace the gear train cover. (ref 3.15)
5. Apply **Lube EP** to bearing surfaces of the throw bar, locking bar, lock and detector blades. (ref 3.16)
6. Apply **Lube EP** to external surfaces of the throw bar, locking bar, lock and detector blades. (ref 3.17)
7. Apply **Lube EP** to the throw bar and detection rollers. (ref 3.18)



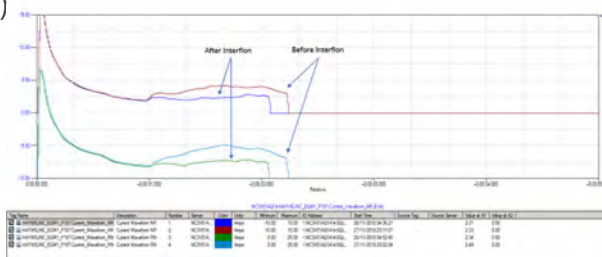
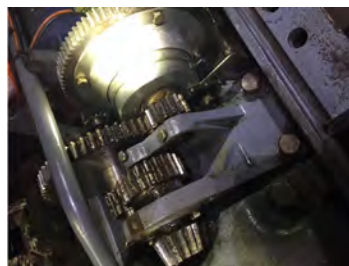
*Schematic Diagram of a HW
(Left Hand) machine*





HW Point Machine Lubrication

1. Clean away any dirt, old grease and contamination using **Metal Clean** allow 5 mins to evaporate.
2. Spray guides and pivot points with **Lube TF** to release any remaining contamination, and wipe parts with a clean cloth.
3. Spray all gear teeth from 6" with a thin coat of **Grease OG**. (ref 3.14).
4. Spray the gear cover retaining screws with **Grease OG** then replace the gear train cover. (ref 3.15)
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6. Apply **Lube EP** to external surfaces of the throw bar, locking bar, lock and detector blades. (ref 3.17)
7. Apply **Lube EP** to the throw bar and detection rollers. (ref 3.18)



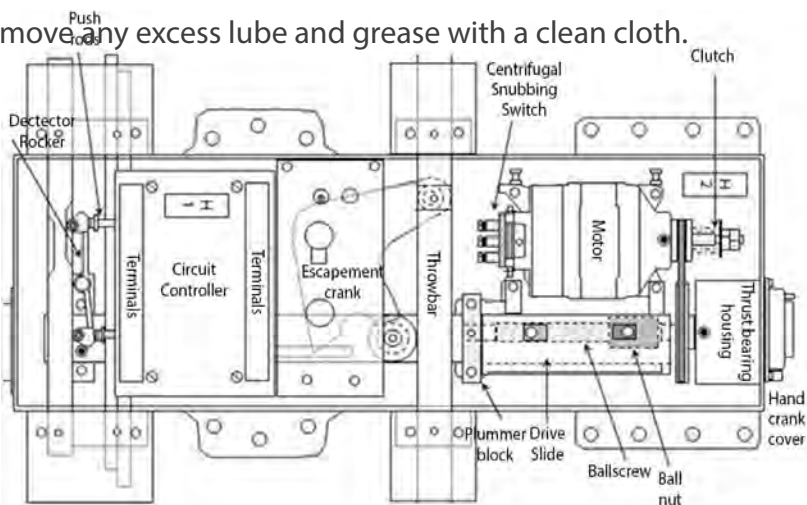
Acceptance PA05/04205
NR/SMS/Part C/PC05





Point Machine 63 Style Lubrication Instructions

1. Clean away any dirt, old grease and contamination using **Metal Clean** allow 5 mins to evaporate.
2. Spray guides and pivot points with **Lube TF** to release any remaining contamination, and wipe parts with a clean cloth.
3. Apply **Lube EP** to the throw bar, locking bar, lock and detector slides. (ref A 2.3)
4. Apply a drop **Lube EP** Detector rocker arm pivot. (ref A 5.1)
5. Apply **Lube EP** to rollers and rubbing surfaces. (ref A 5.1)
6. Apply 1 shot of **Grease MP1** into the motor bearings (2 grease nipples), wipe grease nipple clean before fitting grease gun. (ref A 10.3)
7. Remove any excess lube and grease with a clean cloth.



Point Machine Style 63



Acceptance PA05/04205
NR/SMS/Part C/PC41





Hand Points

1. Clean away any dirt, old grease and contamination using **Metal Clean** allow 5 mins to evaporate.
2. Spray guides and pivot points with **Lube TF** to release any remaining contamination, and wipe parts with a clean cloth.
3. Apply **Lube EP** to pivot points and moving parts.
4. Apply Interflon **Grease MP1** into all crank bearings.
5. Remove any excess lube and grease with a clean cloth.



Lube TF sprayed into pull arm pivot



Lube TF sprayed into pull arm pivot





Facing Point Locks

1. Clean away any dirt, old grease and contamination using a scraper, **Degreaser EM30+** & **Metal Clean** and allow 5 mins to evaporate.
2. Spray guides and pivot points with **Lube TF** to release any remaining contamination, and wipe parts with a clean cloth.
3. Apply **Lube EP** to slides and any moving parts.
4. Apply **Grease MP1** into all crank bearings and greasable pivots.
5. Remove any excess lube and grease with a clean cloth.



Clean all moving parts with Degreaser EM30+ & Metal Clean

Lube TF sprayed into pull arm pivot





Mechanical Signalling

1. Clean away any dirt, old grease and contamination using **Metal Clean** allow 5 mins to evaporate.
2. Spray Mechanical Lever slide plates with **Lube EP**
3. Apply **Lube TF** to pivot points and moving parts.
4. Apply Interflon **Grease MP1** into all crank bearings.
5. Option to Fit Auto Lube canisters that are filled with **Grease MP1**
6. Do not lubricate the wire around a turning pulley, as slippage may occur.
7. Remove any excess lube and grease with a clean cloth.



15ml Auto Lube Canister



30ml Auto Lube Canisters





Roller Rejuvenation

1. Part the seal using a scraper blade.
2. Spray **Lube TF** using the straw down the seal and roller making sure not to spray the roller surface.
3. Allow 10 seconds to penetrate before allowing the seal to return to the roller.
4. Repeat the above on the opposing side.
5. Using your fingers rock the roller back and forth until its free to spin
6. Wipe off any lube from the rolling surface by spraying **Metal Clean** first ON TO A CLOTH before wiping the roller dry.



Interflon **Lube TF** is a quick and effective method of unseizing rollers in a failure situation whilst in track.

It is recommended by NR to then replace the roller ASAP



Crank Lubrication

Interflon **Grease MP1** is a unique lithium complex grease with MicPol® technology, this coats surfaces to provide a low friction coating which withstands shock loads and resists water washout. Interflon **Grease MP1** has a temperature range of -30°C to 145°C making it suitable for all sessions.

1. Wipe grease nipple and area around pivot with Interflon **Power Wipe**, do not use a cleaner/degreaser as this will remove the grease from the boss.
2. Fit shuttle grease gun and slowly apply **Grease MP1** into the boss and pins, allow old grease to be purged, stop applying grease when you can see fresh grease being expelled. (ref A 1.3)
3. If grease point will not accept grease, remove grease nipple and spray into hole with Interflon **Lube TF** and replace grease nipple
4. Wipe all excess grease away with a clean cloth and finally smear a small amount of grease over grease nipple to protect it.



Application of Grease MP1 into crank boss & pins



Simalube grease unit filled with Grease MP1



Acceptance PA05/05620
Simalube auto-grease Section 44
NR/SMS/Part C/PF02





Fish Plate Lubrication

For the initial application of Interflon **Lube EP** the process to be followed is

1. Slacken off fishplates and thoroughly clean fishing surfaces with scrapers then use **Degreaser EM30+** or **Metal Clean** with a wire brush.
2. Re-tighten bolts / fishplates to correct torque setting using an approved method.
3. Apply a maximum of 40ml of Interflon **Lube EP** to each fish plate, using the dosing applicator system (max. 80ml in total per joint).
4. Re-apply Interflon **Lube EP** every 12 months - There is no requirement to slacken off fishplates from the second application of lubricant onwards.
5. Check nut/bolt torque every 2 years using an approved method to loosen nuts and re-tighten.
6. Minimum of 25% of the joints must be cleaned per annum (as points 1 to 4 above) e.g. every fourth joint, the remaining three joints inbetween can be sprayed with **Lube EP** without slackening the bolts.



Lube EP into fishplate with Backpack





Breather, Scarf & Structural Expansion Joint Lubrication

For the initial application of Interflon **Lube EP** the process to be followed is

1. Slacken off bolts of the joint
2. Jack up the rail using a rail jack following your company procedures
3. Thoroughly clean out the grease from the plate and joint using a scraper, **Degreaser EM30+** a stiff nylon brush and **Metal Clean**. Allow 5 minutes for evaporation of the **Metal Clean**.
4. Spray **Lube EP** onto the plate and moving surfaces.
5. Re assemble the joint and torque the bolts to the required setting.

Annually re apply **Lube EP** down the joint and allow to penetrate in and under the rail.



INTERFLON Lube EP for Breathers & Scarf Joints



INTERFLON Lube EP for VAE Structural Expansion Joints



Acceptance PA05/04205
Tata Report – B829 Fishplate Lubrication





Bowmac Protection

Interflon **Grease OG** for use on the rail foot and web of rails at locations experiencing repeated track circuit failures due to rail corrosion / salt contamination (level crossings, damp tunnels)

1. Wash out the crossing with a high powered water jet or scrub with a stiff brush followed by the Birchmeier backpack filled with water.
2. Dry all surfaces with a clean cloth or allow time to dry completely (or welders torch).
3. Apply a thin coating of Interflon **Grease OG** on the steel frame of the Bowmac crossing, and the interface with the rail web, ensuring all surfaces are covered.
4. Apply at the start of every winter session.



Grease OG sprayed onto rail web



Benefits of using Interflon **Grease OG** (aerosol)

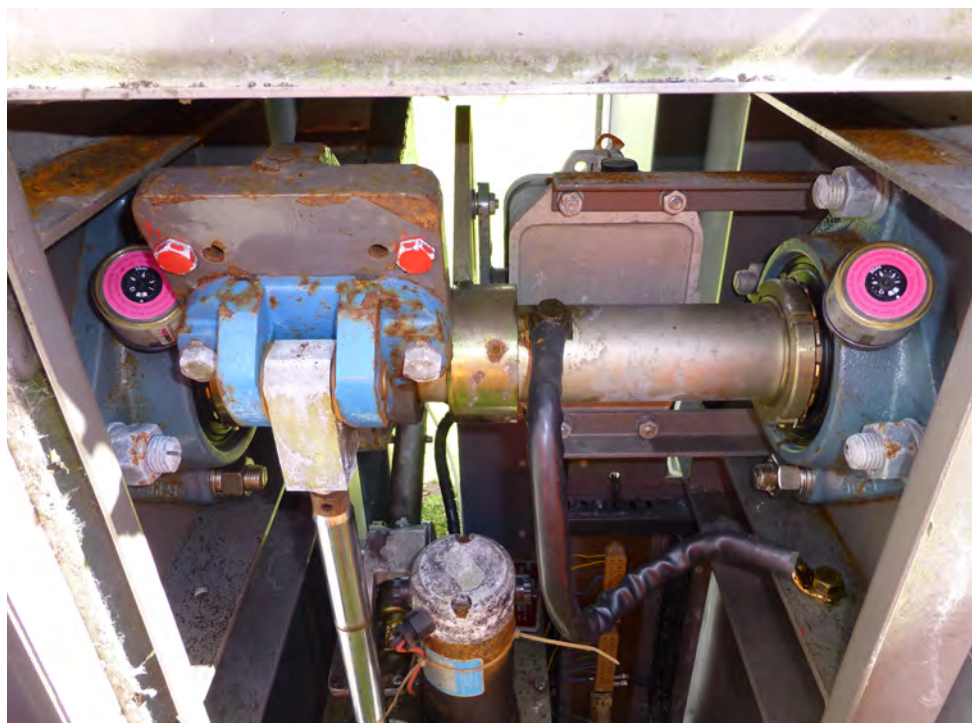
- Quick and easy application.
- Can be applied in-situ.
- Seals the rail with a hard wearing transparent coating.
- Reduces the current short over crossing.
- Only needs applying every 12 months.





Barrier Lubrication

1. Wipe bearing with **Power Wipe** or clean cloth to remove all external dirt and contamination.
2. Fit Shuttle gun and apply Interflon **Grease MP1** into bearing slowly, do not use force, (if resistance felt follow 1 to 4 in T19) apply until old grease is expelled from bearing and fresh grease is visible.
3. Fit 30ml Simalube units filled with **Grease MP1** to accessible points to ensure a regular supply of grease to bearings.



Barrier Bearings fitted with 30ml Simalube units filled with Grease MP1





Pandrol Clips

Interflon **Lube TF** has proven in many industries to be the most effective release spray on most seized parts. The **Lube TF** is an excellent penetrant which breaks down corrosion and allows the movement of previously stuck parts.

1. Hold straw where the clip (rear arch) enters the shoulder and spray **Lube TF** continuously for 5 seconds around this clip entry point.
2. Hold straw into the open end of the shoulder and spray **Lube TF** continuously for 5 seconds up to the clip.
3. Allow time for the **Lube TF** to penetrate into the Pandrol Clip, a stand time of 15-20 minutes should ensure good results.
4. Use Network Rail approved methods to extract Pandrol Clip from Shoulder
5. If Clip will still not release repeat steps 1-5 above with a longer stand time in step 4



Benefits of using Interflon **Lube TF** (aerosol)

- Fast penetration
- Breaks down contamination and rust
- Applies a low friction coating onto parts

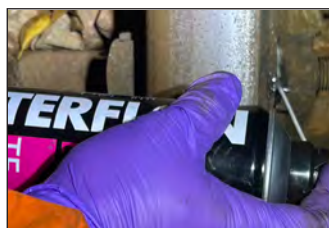




Removing seized fasteners

Interflon **Lube TF** has proven in many industries to be the most effective release spray on most seized parts. The **Lube TF** is an excellent penetrant which breaks down corrosion and allows the movement of previously stuck parts.

1. Hold the straw at the nut and bolt interface and spray **Lube TF** continuously for 5 seconds around the nut.
2. Repeat the above at the other end of the nut interface where the nut engages the bolt threads.
3. Allow time for the **Lube TF** to penetrate into the nut and bolt, a stand time of 15-20 minutes should ensure good results.
4. Use Network Rail approved methods to extract Pandrol Clip from Shoulder
5. Replace the fasteners with a new



Benefits of using Interflon **Lube TF** (aerosol)

- Fast penetration
- Breaks down contamination and rust
- Applies a low friction coating onto parts





Semaphore Signals

Interflon **Grease MP1** is a unique lithium complex grease with MicPol® technology, this coats surfaces to provide a low friction coating which withstands shock loads and resists water washout.

Interflon **Grease MP1** has a temperature range of **-30°C to 145°C** making it suitable for **all** seasons.

1. Wipe grease nipple and area around pivot with Interflon **Power Wipe**, do not use a cleaner/degreaser as this will damage the bearing.
2. Fit shuttle grease gun and slowly apply Interflon **Grease MP1** into bearings and cotter pins, allow old grease to be purged, stop applying grease when you can see fresh grease being expelled.
3. If bearing will not accept grease, remove grease nipple and spray into hole with Interflon **Lube TF** and replace grease nipple.
4. Wipe all excess grease away with a clean cloth and finally smear a small amount of grease over grease nipple to protect it.



Lubrication Instructions Drop Rods & Pivots

1. Clean rod, spring and pivot using **Degreaser EM30+** and a nylon brush.
2. Use Interflon **Metal Clean** to flush away dirt and allow to dry.
3. Lightly spray with Interflon **Lube EP**, wipe away any excess with a clean cloth.





Corrosion Protection

Interflon **Grease OG** is approved as a quick and effective method to protect rail and equipment from corrosion issues.

Can be applied whilst equipment is in track or at manufacture.

1. Remove loose rust and contamination with a wire brush.
2. Fix straw in aerosol and spray **Grease OG** from a distance of 6" over area to protected.





Corrosion Protection

Interflon **Grease OG** is approved as an effective method to protect rail from corrosion issues. Interflon have developed a dual spray system which can apply **Grease OG** in track on existing fixed rail.

Please contact Interflon directly to arrange for a quote.



NR Full Acceptance PA05/05669 part3





Train Stop Lubrication

Interflon **Grease OG** for cleaner and longer lasting lubrication.

1. Clean the spring and pivots using **Metal Clean** and a stiff nylon brush, then wipe dry using a clean cloth.
2. Spray the spring and pivots with **Grease OG** using the extension straw.



Benefits of using **Interflon Grease OG** (aerosol)

- Quick and easy application.
- Transparent grease coating which dries.
- Only needs applying every 12 months.



Mechanical Ground Frame

Initial clean to convert to Interflon

1. Clean away any dirt, old grease and contamination using a scraper from the Annex lock, leaver slides, cranks and facing point lock. Then using **Degreaser EM30+**, a nylon brush remove any further grease. Then use **Metal Clean** to flush, allow 5 mins to evaporate. (When cleaning at maintenance use **Lube TF** or **Lube EP** to clean away any contamination and wipe using a clean cloth.) Do not use degreaser at maintenance
2. Spray springs, pivot pins and cranks with **Lube TF** and allow to penetrate and wipe parts with a clean cloth.
3. Apply **Grease OG** aerosol to the moving parts of the Annex lock, leaver slides, pivots, Pins, rollers guide channel and any other moving parts.
4. Lubricate the facing point lock slides with **Lube EP** and spread with a soft brush.
5. Apply **Grease MP1** into all crank bearings and greaseable pivots (Simalubes can be fitted to grease points follow Simalube fitting procedure).
6. Remove any excess lube and grease with a clean cloth.





Rail head & Leaf fall cleaner

Application Instructions

1. Wearing gloves and glasses, carefully decant the Interflon **Clean OTR** from the 10-litre tub into a suitable spray bottle like a garden sprayer preferably with a long lance.
2. Turning the spray nozzle on the lance tip to a jet, run a bead of **Clean OTR** up the middle of the head of the rail (not over applying) and allow to spread.
3. Give the product 10 minutes to react with the organic leaf matter, this will turn the leaves into a pulp and can be removed by water or example the jetting train or the wheel sets of a passing train will disperse the dissolved leaves and fluid.



Dilution rate

Very heavy leaf contamination, use neat
Light contamination, dilute 1.1 with water

Notes

Testing has proven that you only need a small amount of product to dissolve the leaf matter on the rail head. Applying too much product could lead to initial wheel adhesion slippage.



Network Rail Catalogue Number:
 Interflon Clean OTR: 0057/093082





Rail head & Leaf fall cleaner

Application Instructions

1. Wearing gloves and glasses

carefully decant the **Interflon LeafGuard OTR** from the 10-litre tub into a LeafGuard OTR delivery trolley system.

2. Turn the handle to the on position and flow regulator to the desired walking speed setting.
3. Give the product 10 minutes to react with the organic leaf matter, this will turn the leaves into a pulp and can be removed by water or example the jetting train or the wheel sets of a passing train will disperse the dissolved leaves and fluid.

Dilution rate

Very heavy leaf contamination, use neat
Light contamination, dilute 1:1 with water

Notes

Testing has proven that you only need a small amount of product to dissolve the leaf matter on the rail head. Applying too much product could lead to initial wheel adhesion slippage.

Scan me for the application guide



Network Rail Catalogue Number:
Interflon Clean OTR: 0057/093082





Thread Protection – Paste HT1200

Application Instructions

1. Ensure parts are clean, use **Metal Clean** to prepare surfaces if required.
2. Apply a thin coating of **Paste HT1200** around the screw thread, directly from the tube or with a clean glove.
3. Allow to air for 1 minute
4. Connect thread and screw together ensuring all surfaces are fully coated with **Paste HT1200**.
5. Tightened to the required Torque.
6. Friction coefficient of **Paste HT1200** – 0.12 (steel-steel)



Network Rail Catalogue Number:

Interflon Paste HT1200: 0111/120604



Cleaning Speed Boards

Interflon **Power Wipes**. Strong, industrial quality cleaning towels saturated with a powerful heavy-duty cleaning solution. Convenient and easy to use for cleaning tools, work area, machine parts, equipment and also removes graffiti.



Traditional Products

A bucket of water/detergent and cloths, which results in additional equipment to carry to track.



Interflon **Power Wipes**

Simple and strong with a cleaning solution in a handy towel. Leaving no residue on the sign and no damage to the reflective coating.

Speed Board cleaned quickly with Power Wipes



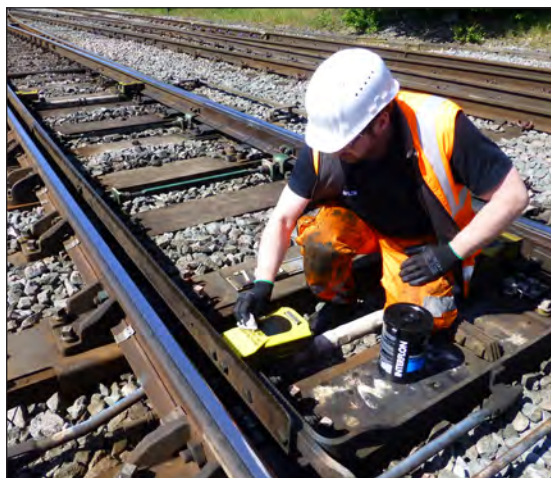
Network Rail Catalogue Number:

Interflon Power Wipes: 0057/093082



Cleaning Stretcher Bars

Interflon **Power Wipes**. Strong, industrial quality cleaning towels saturated with a powerful heavy-duty cleaning solution. Convenient and easy to use for cleaning tools, work area, machine parts, equipment and also removes graffiti.



Interflon **Power Wipes**. Simple and strong with a cleaning solution in a handy towel. Cleaning of the stretcher bars allows easy visual inspection of the bar for any defects.

Power Wipes may also be used to safely remove deposits from stretcher bar motion units as well as POE (Clamp Lock) body covers.

After cleaning stretcher bars with **Power Wipes**, a light coating of Interflon **Lube TF** can be used to prevent corrosion.

Simply spray Interflon **Lube TF** onto the bar and work in with a clean cloth till dry.



Network Rail Catalogue Number:

Interflon Power Wipes: 0057/093082

OLE





OLE Counter Balance Weights

Interflon **Grease OG** to eliminate the guide tubes from sticking to the tube eyelets allowing smooth and uniform movement of the counterbalance weights.

1. Spray the guide tube for the whole length on all sides.
2. If required a soft brush may be used and should be used if applied from a tub.
3. Refer to the work place risk assessment and method statement for details on health and safety requirements. The brush must be disposed of in the correct manner.



Benefits of using Interflon **Grease OG** (aerosol)



- Quick and easy application.
- Transparent grease coating which dries.
- Only needs applying in accordance with current practice.

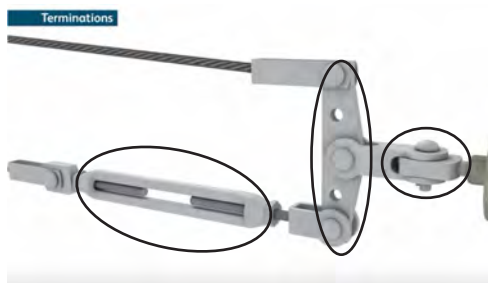




OLE Equalising Plate Lubrication

Interflon **Grease OG** to prevent corrosion forming on the equalising plates and to lubricate the termination pins; **OG Grease** can also be used on the threads to alleviate seizing.

1. Spray the equalising plates, threads, pins and clevis termination at the insulator.
2. If required a soft brush may be used and should be used if applied from a tub.
3. Refer to the work place risk assessment and method statement for details on health and safety requirements. The brush must be disposed of in the correct manner.



Benefits of using Interflon **Grease OG** (aerosol)

- Quick and easy application.
- Transparent grease coating which dries.
- Only needs applying in accordance with current practice.





Pulley System Lubrication

Interflon **Grease OG** to lubricate suspension, bridal & counterbalance pulley bearings and bushes with high load resistance and low water wash-out capability.

1. Clean the grease nipple with a clean cloth.
2. If using **Grease OG** for the first time, purge the old grease from the bearing by applying several actuations of the Lube Shuttle gun until you have a witness of **Grease OG** which will appear as a slightly different colour.
3. For additional applications refer to current greasing regime.
4. Wipe away any excess grease from the bearing with a clean cloth.
5. Refer to the work place risk assessment and method statement for details on health and safety requirements.

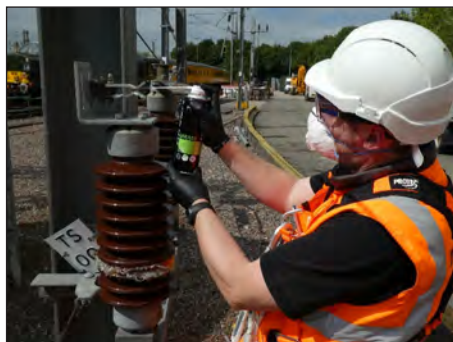




Isolation Switch Lubrication

Interflon **Grease OG** to prevent corrosion forming on the isolation switch plates alleviating the switch from seizing and to lubricate the bottom switch bearings.

1. Spray the switch plate, termination arm & lower bearing.
2. Wipe away any excess with a clean dry cloth.
3. Refer to the work place risk assessment and method statement for details on health and safety requirements.





OLE Support & Registration Equipment

Interflon **Grease OG** to lubricate and protect support and registration arm assemblies to allow free motion of the conductor wire.

- Penetrates the conductor wire clamps located on the registration arms without the need to loosen the clamp bolts.
1. Spray the registration arm clamp block, support arm upper swivel bracket and registration arm hook & eye/ pin fitting.
 2. Wipe away any excess with a clean dry cloth.
 3. Refer to the work place risk assessment and method statement for details on health and safety requirements.



Winter Precautions





Winter Slide Chair Preparation

Interflon **Lube EP** uses MicPol® technology to give Slide Chairs a low friction coating which operates down to -43°C , this coating makes it very difficult for ice to hold to the surface enabling the switch rail to push the ice off the Slide Chairs.

1. Ensure all contamination and ice is removed from Slide Chairs using metal scraper and nylon brush.
2. Follow application procedure in section 1 for applying Interflon **Lube EP** to Slide Chairs.
3. Currently only **Kilfrost (Cat no. 007001249)** products are recommended for use with Interflon Lube EP. All **Kilfrost** de-icers are compatible but **Kilfrost Rail Plus** is the preferred option. If **Kilfrost** is used for extended periods it is recommended that an additional top up visit is made to re-apply Interflon Lube EP.
4. When re applying Interflon **Lube EP** at maintenance, wipe away any **Kilfrost** before applying.





Winter HPSS LVDT Preparation

Interflon **Lube TF** can be used to reduce the risk of ice damage to HPSS LVDT sensors. Damage is caused when ice obstructs the LVDT guide rods causing them to bend when the points are swung – Interflon stops ice from adhering to the rods preventing this obstruction damage

1. Remove the yellow end covers from the LVDT hollow bearer. Where required remove the 4' Powerlink covers at the relevant hollow bearers.(Figure 1)
2. Shake the Interflon **Lube TF** can vigorously. Apply Interflon **Lube TF** to the LVDT sensor guide rod and sensor rods on the open switch side. This should be evenly applied along the exposed length of the rods within the 4' section of the hollow bearer.(Figure 2)
3. Apply Interflon **Lube TF** to the LVDT sensor guide rods on the closed switch side. This should be evenly applied along the exposed length of the rod within the 6' end of the hollow bearers.(Figure 3)
4. Arrange for the switch position to be reversed. REPEAT steps 2 and 3.
5. Replace and secure all hollow bearer covers making sure all relevant securing bolts are utilised



Ice build up



Figure 1. Remove covers



Figure 2. Spray guide & sensor rods

Re-Application Frequency (Steps 1 to 5)

During the winter season it is recommended that the **Lube TF** is re-applied at least on a 13 weekly frequency, with a 4 weekly cycle recommended where prolonged spells of cold weather are experienced.





Winter Crank Preparation

Interflon **Grease MP1** has proven to reduce equipment failure during cold spells, as the grease ensures a low friction lubrication layer down to -30°C, preventing parts from becoming frozen.

1. Ensure all equipment is fully greased before extreme cold weather, this will ensure moisture is sealed out parts will operate at cold temperatures.
2. See Section 7 for full details and procedures.



Acceptance PA05/05620





Winter Semaphore Signal Preparation

Interflon **Grease MP1** has proven to reduce equipment failure during cold spells, as the grease ensures a low friction lubrication layer down to -30°C, preventing parts from becoming frozen.

1. Wipe grease nipple and area around pivot with Interflon **Power Wipe**, do not use a cleaner/degreaser as this will damage the bearing.
2. Fit shuttle grease gun and slowly apply Interflon **Grease MP1** into bearings and cotter pins, allow old grease to be purged, stop applying grease when you can see fresh grease being expelled.
3. If bearing will not accept grease, remove grease nipple and spray into hole with Interflon **Lube TF** and replace grease nipple.
4. Wipe all excess grease away with a clean cloth and finally smear a small amount of grease over grease nipple to protect it.





Line Sign Winter Preparation

Interflon **Lube EP** reduces the adhesion of ice onto moving parts allowing the equipment to operate more freely.

1. Spray stake pulleys and wires either side of pulleys with Interflon **Lube EP**, then remove excess with a clean cloth.
2. Spray small amount of Interflon **Lube EP** into pulley bush.
3. Apply Interflon **Grease MP1** into all crank bearings.
4. Do not lubricate the wire around a turning pulley, as slippage may occur.



Effective down to -43°C



Acceptance PA05/04205 part 6



TRACK PRODUCT SUPPORT

Product application procedures.



Interflon products introduce new technology into the railway and as a result some of the applications and techniques differ from how the industry has used lubrication over the last number of decades; we have a support team in place to address this need.

Our support team offer:

- Classroom, On-track or a combination
- Working with Network Rail to offer best practices
- Continuous support throughout asset conversions to Interflon products
- Fully approved products
- Flexible working (days or nights)
- No charge



Rob Taylor - (PTS)

Rail Product Support

t: 07909 903358

e: rtaylor@interflon.co.uk



Alan Wright - (PTS - BEng Rail Signalling Engineer)

Rail Product Support

t: 07808 244 181

e: awright@interflon.co.uk



Joe Crichton - (PTS)

Rail Product Support

t: 07355 093 931

e: jcrichton@interflon.co.uk

Email us at rail@interflon.co.uk

Equipment



LUBRICATION SPRAY EQUIPMENT

INTERFLON Backpack 10X

Cat No. 0111/110759

Type: Birchmeier Interflon 10X

Lance: Brass Coated

Nozzle: Blue adaptor block Brass Jet



Replacement Coated Lance

Cat No. 0111/110760



Interflon 2ltr Pump Sprayer

Cat No. 0057/055631

A light weight compact pressure sprayer for fast and accurate application of Interflon Degreaser EM30+

When not in use release pressure and empty

INTERFLON CLEANING BOX



Interflon Equipment Box (Contents)

- 1x Toolbox
- 2x Sponge Scourer
- 1x Funnel
- 1x 2" Brush - Long Handle
- 2x 1" Scraper
- 2x 2" Scraper
- 2x 3" Scraper
- 6x Pan Nylon Brush
- 5x Heavy Duty Tek Wipe (10 pack)
- 6x500ml Trigger Spray Bottle (EM30+)



Network Rail Catalogue Number:
Interflon Equipment Box: 0111/111835



Lube Shuttle Grease Gun

Interflon Lube-Shuttle® Side Lever Grease Gun

Product Description:

Side lever grease gun for Lube-Shuttle® system cartridges. High quality zinc plated steel barrel and ergonomic hand grip.

Includes:

- 300mm Rubber hose* fitted with 4 jaw hydraulic connector
- 6" Bent rigid tube



Network Rail Catalogue Number:

Lube-Shuttle® Side Lever Gun **0111/109985**



Interflon Lube-Shuttle® Trigger Grip Grease Gun

Product Description:

One hand grease gun for Lube-Shuttle® system cartridges. High quality zinc plated steel barrel and ergonomically designed pistol grip.

Includes:

- 300mm Rubber hose* fitted with 4 jaw hydraulic connector
- 6" Bent rigid tube



Network Rail Catalogue Number:

Lube-Shuttle® Trigger Grip Gun **0111/109986**



Catalogue Number:	Description:
0057/055793	Interflon Grease MP1 (400ml Lube-Shuttle®)
0057/055794	Interflon Grease MP1 (13ltr Drum)
0111/109985	Lube-Shuttle® Side Lever Grease Gun
0111/109986	Lube-Shuttle® Trigger Grip Grease Gun
0111/109987	Lube-Shuttle® ecoFill 20s (13ltr Drum Pump Kit)

Clean OTR Single Rail Applicator

Interflon OTR Applicator Solutions

The Clean OTR Applicator is designed for simple, safe operation to deliver the exact required amount of product.



When refilling, decant Interflon Clean OTR from the 10L drum in a well-ventilated depot area on solid ground, away from drains and watercourses. Ensure appropriate PPE is worn and spill kits are available.



Key Advantages:

- Quick and easy to apply in track.
- Can be diluted with water (max 1.1) for light contamination.
- Improves wheel traction.
- The product does not damage steel, rubber, plastic or reflective coatings so will be safe around cabling and insulators / pads and signage.
- Re-activation layer left behind and activated with water or rain.
- Long lasting results
- Frontline staff will have less need to go lineside and thus improves track worker safety.
- Biodegradable.



Network Rail Catalogue Number:

Interflon Applicator Pram Type

0111/12680

Clean OTR Double Rail & RRV Applicator

Interflon OTR Applicator Solutions - Exciting New Designs Coming Soon.

The **Clean OTR** Applicator is designed for simple, safe operation to deliver the exact required amount of product.

A lightweight, adjustable gauge prototype trolley has been developed for global, single operator use, integrating proven medical grade peristaltic pump technology. This innovative design enables precise control of product application directly correlated to the speed at which the trolley is pushed along a designated track.



Trial Available NOW

An applicator for use on Road Rail Vehicles (RRVs) and On Track Machines (OTMs) has been successfully developed, adapting cutting edge RADAR and GPS based technology originally designed for the agricultural sector, which will come data reporting smart features.

Trial Available



Network Rail Catalogue Number:

NR lead for Autumn: Tony Jackson: Email: tony.jackson@networkrail.co.uk

Interflon Double Rail Applicator Pram Type – Trial Available NOW

Interflon RRV / OTM Applicator – Trial Available

Lube Shuttle Grease Gun

Interflon Lube-Shuttle® System Solutions

Lube-Shuttle® cartridges leave virtually no grease in the shuttle after discharge and are 100% re-usable, **effectively eliminating waste cartridges left on track**. Re-filling Lube-Shuttle® cartridges can increase Interflon lubrication cost saving by **35%** on average, compared to buying new.

The Lube-Shuttle® system is clean & easy!

- Remove screw cap
- Push the grease level with the top of the shuttle
- Screw in Lube-Shuttle® cartridge

Your Lube-Shuttle® system is now ready to use!

The Lube-Shuttle® system is Economical & Ecological.

- Optimum cartridge discharge
- No air release necessary
- Lube-Shuttle® cartridges are re-fillable
- Permanent monitoring of grease type and grease level

Lube-Shuttle® System Savings

Customers have seen savings of up to 35% by switching to a Lube-Shuttle system!*



To find out how much you could save by switching to a Lube-Shuttle® system, contact **Interflon (UK) Ltd today!**

* By re-filling shuttles compared to buying new



Network Rail Catalogue Number:

Lube-Shuttle® ecoFill Drum Kit

0111/109987

Simalube® Lubricators

Interflon Simalube® automatic lubricators

To maintain a constant flow of lubrication on track throughout the year, the fitting of a Simalube® Automatic Lubricator may be the best solution.

We are currently working with a company called FlexiLube who are permitted to supply and install Simalube® Lubricators on track filled with Interflon lubricants, providing effective protection of equipment in difficult and hard to reach applications.



For further information on Simalube® Lubricators contact **FlexiLube UK Simalube®** distributor for more information:

Alex Bann - alexanderbann@flexilube.co.uk

Tel: 07880 616879

FlexiLube UK Simalube® Distributor
Holly Farm Business Park
Honiley
Kenilworth
Warks
CV8 1NP

Tel: (01676) 540668

Fax: (01676) 540661

simalube®
smart lubrication

Simalube® Lubricators

Interflon Simalube® Parts List

Item:	Description:	Catalogue Number:
100.3000	Simalube® 30ml filled with Interflon Grease MP1	0057/055781
100.3000-R	Refilled Simalube® 30ml filled with Interflon Grease MP1	R 057/055781
100.6000-1	Simalube® 60ml filled with Interflon Lube LT	0057/055787
100.6000-1R	Refilled Simalube® 60ml filled with Interflon Lube LT	R 057/055787
Oil Pump	16ltr capacity oil pump with 0.1 - 0.25ltr stroke	0057/055783
100.1500	Simalube® 15ml filled with Interflon Grease MP1	0057/055785
100.1500-R	Refilled Simalube® 15ml filled with Interflon Grease MP1	R 057/055785
Interflon Grease MP1	400ml cartridge of Interflon Grease MP1	0057/055790
100.3000-MS-Kit	2 x SL00-30 (Simalube® 30ml filled with Interflon Grease MP1) 2 x 1/8" to 1/8" 45° deg elbow 2 x 1/8"M to 1/4"F adapter	0057/055784
100.6000.CL-Kit	4 x SL00-1-60 (Simalube® 60ml filled with Interflon Lube LT) 1 x 1ltr bottle of Interflon Lube EP	0057/055789
100.1500-MS-Kit15	2 x SL00-15 (Simalube® 15ml filled with Interflon Grease MP1) 2 x 1/8" to 1/8" 45° deg elbow 2 x 1/8"M to 1/4"F adapter	0057/055786

Simalube® Lubricators

Interflon Simalube® Parts List

Item:	Description:	Catalogue Number:
100.3000-BP-KIT	Barrier pedestal Conversion Kit BR843 Barrier only 2 x SL00-30 (30ml filled with MP 1) 2 x 1/8" M to 1/4" F adaptor	0057/0055792
100.7000-CBSS	Crank Box and accessories	0057/068233
100.7000-1LSC	Small Crank Kit for 1 lube point (15ml filled with MP 1)	0057/059094
100.7000-1LLC	Small Crank Kit for 1 lube point (30ml filled with MP 1)	0057/059095
100.7000-6LCOCBNB	Crank Lubrication for 6 lube point crank on compensator or signal box (2 x 30ml filled with MP 1) (4 x 15ml filled with MP 1)	0057/059096
100.7000-3LSBCNB	Crank Lubrication for 3 point crank from Signal box. (1 x 30ml filled with MP 1) (2 x 15ml filled with MP 1)	0057/059097
100.7000-3LCNB	Crank Lubrication for 3 point crank (1 x 30ml filled with MP 1) (2 x 15ml filled with MP 1)	0057/059099
100.7000-4LCNB	Crank Lubrication for 4 point crank (1 x 30ml filled with MP 1) (3 x 15ml filled with MP 1)	0057/059098
100.1500-MS-Kit15	2 x SL00-15 (Simalube® 15ml filled with Interflon Grease MP1) 2 x 1/8" to 1/8" 45° deg elbow 2 x 1/8" M to 1/4" F adapter	0057/055786

The Hardlock Nut

The Hardlock nut supplied by Staytite, is a reusable all-metal fastener designed to resist loosening by vibration and other external factors.



Approved for use on fishplates CERT NO PA05/02077

The Hardlock Nut **reduces infrastructure costs** when re-railing, replacing fishplates and during the re-oiling maintenance process. This is because it is **quicker and easier to fit** than other approved products.

Hardlock's unique design means battery powered tools are ideal for installation. **So, no more heavy tools** weighing over 20kg. Battery power eliminates the need for flammable liquid fuels. **HAVs reduced or even eliminated**, depending upon which power tool system you use. The only tool you will need is a double depth socket.

This is just a brief overview of what Hardlock can offer. If you have further questions about the benefits in engineering and cost saving contact Staytite and we can discuss this with you.

Contact: Michael Moore
Email: michael@staytite.com
Mobile: 07825 550532
Office: 01494 462322

www.hard-lock.co.uk/rail

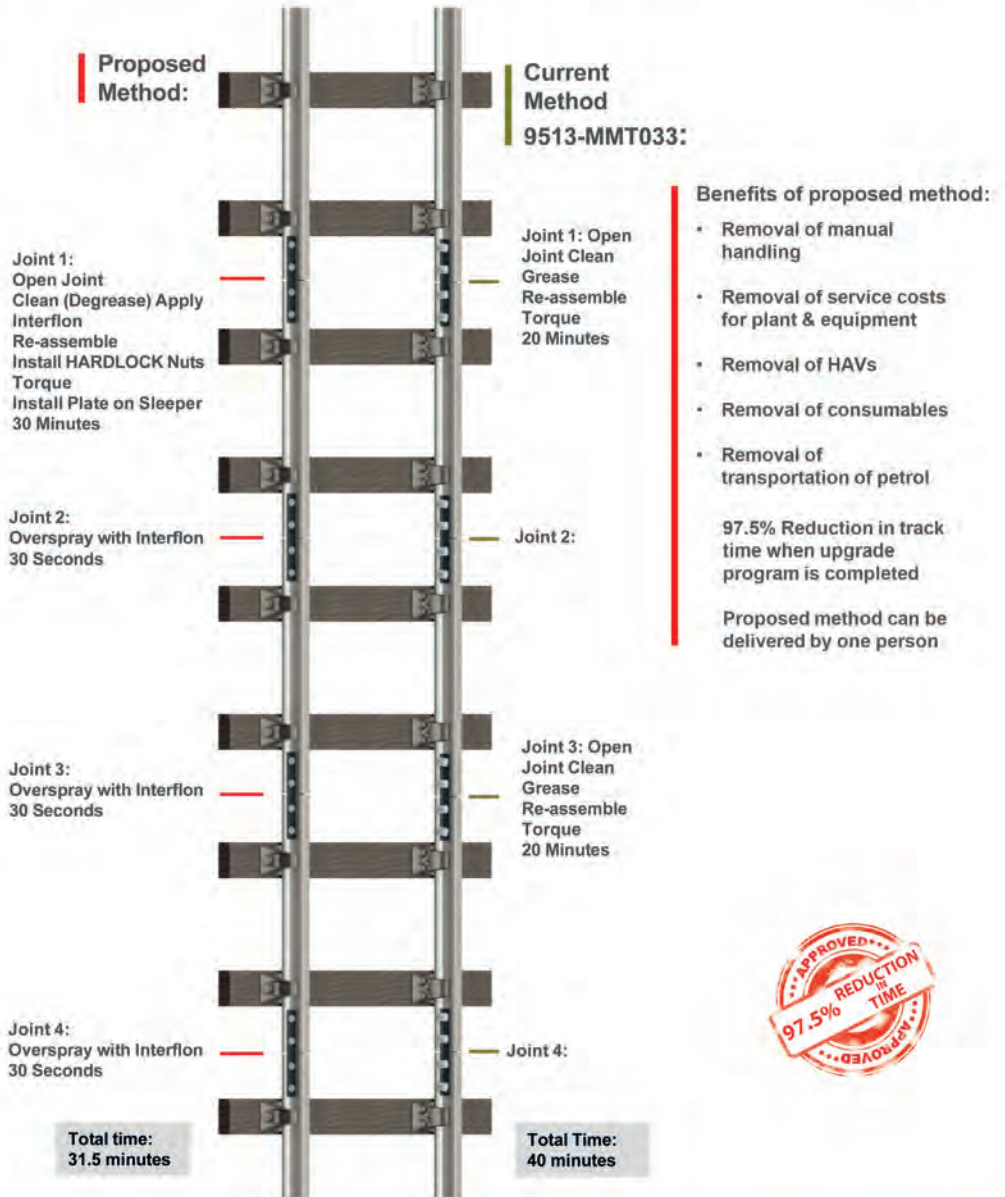


Fishplate & Slide Chair Upgrade Kit and Tools



www.fishplatejointalliance.co.uk
enquiries@fishplatejointalliance.co.uk
01543 416 641

THE FISH PLATE JOINT UPGRADE KIT





Fishplate Upgrade Kit A - Flat Bottom

£98.95

Product code: FPJA-FBK

CAT No: 0111/122043

Fishplate Upgrade Kit A - Bull Head

£98.95

Product code: FPJA-BHK

CAT No: 0111/122042



Kit Contents:

- Degreaser from Interflon
- 4 sets of Hardlock nuts, bolts and washers from Staytite
- A sleeper marker plate from Selectequip

Fishplate Upgrade Kit B - Tools

£727.45

Product code: FPJA-TK

CAT No: 0111/122044

Includes:

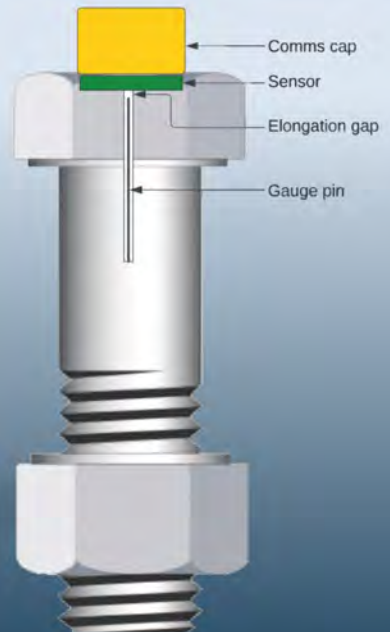
- Medium handled scraper 2" blade c/w Veraco on full handle and grip
- Medium handled scraper 4" blade c/w Veraco on full handle and grip
- Medium handled wire brush c/w Veraco on full handle and grip
- Long handled scraper 2" blade c/w Veraco on full handle and grip
- Long handled scraper 4" blade c/w Veraco on full handle and grip
- Long handled wire brush c/w Veraco on full handle and grip



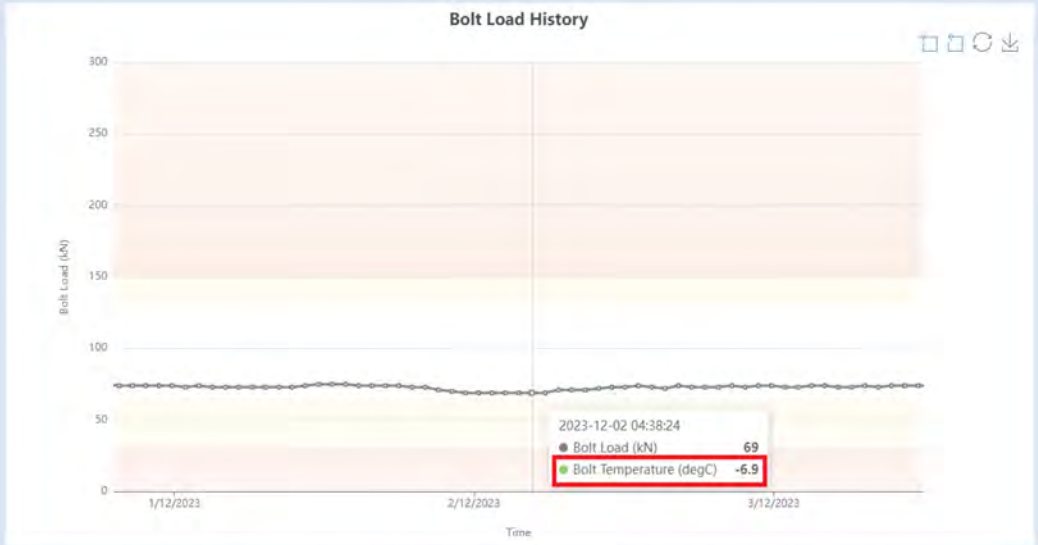
Intelligent Bolts



The Intelligent Bolt features a high accuracy bolt load sensor integrated into a bolt or stud. The battery powered, wireless sensor features inbuilt LED indicators for simple verification of bolt load and transmits data to the Gateway for remote monitoring or Tablet for onsite monitoring.



Intelligent Bolts



Clamp load data can be accessed remotely, in real-time, without the need for technicians to be onsite.

This allows teams to carry out reactive maintenance only when necessary, compared to the current method of testing joints in-person as per the scheduled regime.



Currently temporary rail clamps are inspected daily to make sure they haven't fallen off. Traditional clamps can be upgraded to intelligent clamps by fitting them with Intelligent Bolts. Intelligent Clamps will 'self-check' removing the need to send teams to site to manually inspect.



Learn from **150 years** of **S&C experience**

The most critical asset of railway infrastructure

Railway networks have to cope with increasing load and aging infrastructure. As maintenance needs get more frequent, manual inspections don't suffice to detect them in advance. Switches are the most critical part of the rail infrastructure, causing approximately **20–30% of infrastructure-related delay minutes** and **costing €12bn a year** globally to maintain and replace.



Formed in 2022, the S&C Alliance brings together complementary suppliers with a common goal – to help our customers optimize the performance of their Switches and Crossings. Scan the QR code to follow us on LinkedIn and learn more.

The S&C Alliance: The key to S&C longevity

With over 200 years of experience in all elements of the engineering, manufacture and maintenance of switches and crossings, we are uniquely placed to offer on site advice, support, engineering and technology solutions.

Our members work together to offer best in class capabilities to safely and efficiently resolve the S&C reliability challenges faced by Infrastructure Managers Currently, the Alliance consists of 6 members and are always open to new additions.

Our strengths



Increased reliability with decreased delays



Trustworthy fastening to extend longevity



Holistic, healthy S&Cs that deliver for years+



Smooth operations with durable lubricants



Easy application of maintenance materials



Actionable insights with AI-powered data

Our Partners



www.dwguk.com



www.staytite.com



www.interflon.co.uk



www.simalube.co.uk



www.intelrail.co.uk



www.konux.com

Products



Interflon Rail Products

Interflon PPE Icons Explained



GLOVES REQUIRED
Check SDS for suitable material



TIGHTLY SEALED
GOGGLES (EN 166)



RESPIRATOR
REQUIRED*

Interflon Packaging Icons Explained



MULTI-PURPOSE



+++

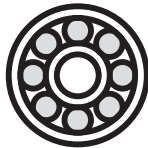
HEAVY LOAD



CORROSION
PROTECTOR



OPEN GEARS



BEARINGS



WATER RESISTANT



CLEAN RAIL



++

MODERATE LOADS

** Please note respiratory equipment is required when using any aerosol product in poorly ventilated areas*

Interflon Rail Products

Interflon **Lube EP** (formally known as Fin lube EP)

Product Description:

Interflon **Lube EP** is an extreme pressure dry film lubricant fortified with MicPol® technology. Designed for the lubrication of parts that operate under adverse conditions of extreme loads and/or in high water wash areas.

Applications:

All types of Slide Chairs (including plastic), Clamplocks, Fishplates and Wire Ropes

Advantages:

- Less wear
- No dirt adhesion
- Water resistant
- Good corrosion protection
- Longer lasting lubrication



Network Rail Catalogue Number:

Interflon Lube EP (1ltr Bottle)
Interflon Lube EP (10ltr Drum)

0057/055780
0057/055450

Interflon Rail Products

Interflon **Lube TF** (formally known as Fin lube TF)

Product Description:

Interflon **Lube TF** is the renowned dry film lubricant fortified with MicPol® technology. It forms a highly durable lubrication film that virtually eliminates wear on moving parts.

Applications:

Signals, Pandrol Clips, HPSS LDVT Rods, and Clamp Lock bush and pin

Advantages:

- Less wear
- No dirt adhesion
- Water resistant
- Strong penetration
- Good corrosion protection
- Excellent rust solvent



Network Rail Catalogue Number:

Interflon Lube TF (Aerosol)

0057/055460

Interflon Rail Products

Interflon Grease MP1

Product Description:

Interflon Grease MP1 is a universal lithium complex grease with MicPol® technology, for the general lubrication of industrial machinery, rail signals, barriers and cranks. Highly resistant to water, chemicals and other common forms of soiling.

Applications:

Signals, Barriers, and Cranks

Advantages:

- Suitable for most lubrication points
- Significant reduction in friction and wear
- Reduces grease consumption
- Highly resistant to water, corrosion and pressure loads
- Excellent emergency running properties



Network Rail Catalogue Number:



Interflon Grease MP1 (Cartridge) **0057/055790**

Interflon Grease MP1 (Shuttle) **0057/055793**

Interflon Grease MP1 (13ltr Drum) **0057/055794**

Interflon Rail Products

Interflon Grease OG

Product Description:

Interflon Grease OG is an exceptionally long lasting, transparent lithium-calcium-complex grease for open gears and most rail applications, delivering all the advantages and benefits of Interflon's MicPol® technology.

Applications:

SWITCH TIP lubrication, Corrosion protection, Bowmac crossings, and Curve Lubrication.

Advantages:

- Exceptionally, long-lasting reduction of friction and wear
- Resistant to water washout and spray-off
- Outstanding emergency-run characteristics
- Stands up against very high impact (shock) loads



Network Rail Catalogue Number:



Interflon Grease OG (Aerosol)

0057/055802

Interflon Grease OG (13ltr Drum)

0057/055805

Interflon Rail Products

Interflon **Paste HT1200**

Product Description:

Interflon **Paste HT1200** assembly grease for high temperature conditions with best in class breakaway torque characteristics, in particular on stainless steel. Prevents fretting and corrosion during the assembly and disassembly of all kinds of machinery.

Advantages:

- Very low coefficient of friction even at high pressure
- Excellent adhesion
- Protection against corrosion
- Metal free and therefore safe for man and environment
- Excellent replacement for copper paste



Nonfood Compounds
Programme Listed H1
Registration 137221



Number: 1704532



Network Rail Catalogue Number:

Paste HT1200 150ml tube 150ml **0111/120604**

Paste HT1200 aerosol **0111/120605**

Paste HT1200 500ml tub **0111/120606**



Interflon Rail Products

Interflon Metal Clean

Use Interflon Metal Clean to prepare surfaces for the application of Interflon Lube EP

Product Description:

Cleans and degreases metal parts, stainless steel, stone, aluminium etc. in most cleaning situations. Causes petroleum derivatives, oils, greases, fuels, lubricants, fats, tar, resins, silicones, proteins, sugars, asbestos and other organic and complex soils to repel from your chains, machine parts and other cleaning surfaces and to be rinsed away.

Applications:

Cleaning of all general rail components

Advantages:

- Industrial degreaser for use on the job and in the workshop
- Very effective with rapid evaporation
- High pressure jet which flushes dirt away very easily
- Leaves no residue
- Readily Biodegradable
98% OECD 302 B
(Modified)



Network Rail Catalogue Number:

Interflon Metal Clean (Aerosol)

0057/055470

Interflon Rail Products

Interflon Degreaser EM30+

Product Description:

Highly versatile degreaser for use in rail industry. Excellent for tough cleaning jobs. Gently breaks down the composition of heavy greases, oils, grime, dirt, graphite and carbon residue. Removes tar, paint, silicone, glues, hot melt, resins, polymers, styrenes, adhesives, waxes, bitumen, paints, labels and graffiti too. Very effective cold degreaser on rail points, rail equipment and many more...

Applications:

Cleaning of all general rail components

Advantages:

- Very effective with slow evaporation
- Can be used with parts washers
- Leaves no residue
- Excellent replacement for acetone (Modified)



Network Rail Catalogue Number:

Interflon Degreaser EM30+

0057/055630

Interflon Rail Products

Interflon Power Wipes

Product Description:

Strong, industrial quality cleaning towels saturated with a powerful heavy-duty cleaning solution. Convenient and easy to use for cleaning tools, speed boards, stretcher bars. Invaluable when working at an off site location

Applications:

- Cranks
- Speed Boards
- Stretcher Bars
- Glass (ONLY) Lenses
- Hand Tools (Scrapers)
- P-Way Bars, Gauges

Interflon Power Wipes effortlessly remove common and persistent dirt as grease, oil, printing ink, graffiti, tar, brake fluid, soot, glue, graphite, resin and many other persistent sources of dirt. The high absorbency capacity of the towels ensures that dirt is thoroughly absorbed and retained.

Key Advantages

- Large heavy duty towels
- Does not “fluff” & leaves little or no residue
- Powerful cleaning properties
- Pleasant odour
- Extremely high absorbency capacity
- Easy and cheap to use



Network Rail Catalogue Number:

Interflon Power Wipes: 0111/122682

Interflon Rail Products

Interflon OTR (Leaf Remover & Railhead Cleaner)

Product Description:

Powerful biodegradable Cleaner / deoxidiser developed to quickly remove organic leaf contamination and oxidation from the rail head. It strongly reduces adhesion issues and risk of wrong side track circuit failures.

The cleaner has a quick activation time (1-2 minutes) no need to rinse with water or wipe as the product self-cleans and leaves a micro layer which re activates with rainwater and moisture, the surface stays cleaner for longer.

Key Advantages

- Quick and easy to apply in track.
- Can be diluted with water (max 1:1) for light contamination.
- Improves wheel traction.
- The product does not damage steel, rubber, plastic or reflective coatings so will be safe around cabling and insulators / pads and signage.
- 98.5% Biodegradable



Network Rail Catalogue Number:

Interflon OTR: 00057/093082

More important experiences using Interflon...

Euston (STME)



Having seen the benefits of using Interflon products working as a national reliability specialist S&T, the RLNW are now introducing the Interflon products into track to help improve points reliability.

STE Reliability (Senior Engineer)



As route lead on the LNE for reliability we have developed the best lubrication practices with Interflon to improve performance and efficiency.

Cost Saving on product only worked out at £330.50 per Clamp Lock end and £1843.95 per point end over a 5 year control period

Neil Denton

Head of S&C OSR Global (ex NR National Senior S&C Engineer)



By introducing the Interflon dry film technology we have changed the way the railway lubricates all its components in track and also at manufacture. It has proved to be a big contribution to improving the performance and reliability of the infrastructure.

Our International Clients

High Speed Testing in China



Typical switch layout in Shanghai



Interflon's coating after heavy rain

Testing of Interflon's **Lube EP** dry coating, has been conducted on the busiest part of the high speed section in Shanghai. This busy part of the network can see the number of switch movements in and around stations in excess of 1200 movements a day.

Prior Issues:

- High re lubrication frequencies once or twice weekly.
- Wet weather would wash off oil and grease.
- Switch motor time out due to high friction.
- Swelling and delamination of rubber rail pads due to the use of wet and Biodegradable lubricants, would result in a reduced toe load of the rail clip .

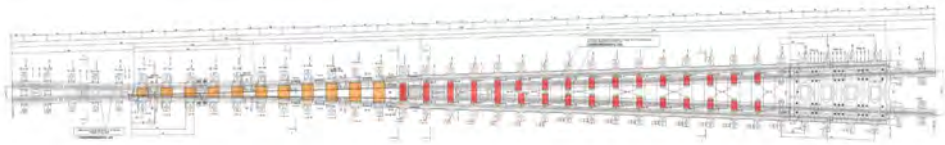
Since using **Lube EP**, their has been no more reported failures, swelling of rubber rail pads, coating being washed off during heavy wet weather conditions and more than doubled the re application period of the previous German lubricant product.

Usage example:

- Previous product per 5000 slide plates per year = 18,000KG
- Interflon **Lube EP** per 5000 slide plates per year = 720 Ltrs

Our International Clients

Swingnose Crossing Results Taiwan



Swingnose crossing results

Lube EP was applied in very wet conditions to two ends of Swingnose crossings in Taiwan (THSRC), the data was gathered through RCM (Remote condition monitoring) before and after application. The data was monitored and then gathered after 30 days, the rain fall during this period was 445mm which traditionally caused failures using the current Weicon gmbh lubricant.

Results

- Improvement of **15 – 30%** in reduction of forces to throw the switch.
- **Lube EP** could be applied in torrential rain.
- **Lube EP** did not wash off the plate
- Reduced lubrication frequency.





Our Lifesaving Rules

Safe behaviour is a requirement of working for Network Rail.
These Rules are in place to keep us safe and must never be broken.
We will all personally intervene if we feel a situation or behaviour might be unsafe.

Working responsibly



Always be sure the required plans and permits are in place, before you start a job or go on or near the line.



Always use equipment that is fit for its intended purpose.



Never undertake any job unless you have been trained and assessed as competent.



Never work or drive while under the influence of drugs or alcohol.

Working with electricity



Always test before applying earths or straps.



Never assume equipment is isolated – always test before touch.

Driving



Never use a hand-held or hands-free phone, or programme any other mobile device, while driving.



Always obey the speed limit and wear a seat belt.

Working at height



Always use a safety harness when working at height, unless other protection is in place.

Working with moving equipment



Never enter the agreed exclusion zone, unless directed to by the person in charge.

We will always comply with our Lifesaving Rules

For more information about our Lifesaving Rules go to safety.networkrail.co.uk/LSR

INTERFLON



Download the latest digital version of this manual by scanning the QR code below with your smart device



You can also stay up to date with news and product information by following us on social media

Search [LinkedIn](#) for the following pages:

Interflon Rail

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Email: rail@interflon.co.uk

Website: www.interflon.co.uk

For training & technical advice contact us today

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E: rtaylor@interflon.co.uk

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E: awright@interflon.co.uk

Joe Crichton

T: 07355 093 931

E: jcrichton@interflon.co.uk

Product & Application Chart

Product		Cat No.	Description	Application
OILS	INTERFLON LUBE EP	1 ltr - 0057/055780 10 ltr - 0057/055450	Extreme pressure dry-film lubricant fortified with MicPol®. Provides a tough, durable boundary of solid film lubricant. -43°C (up to +170°C)	Slide Chairs Clamp Locks Fish Plates
	INTERFLON LUBE TF	Aerosol - 0057/055460	Highly versatile, industrial quality dry-film lubricant fortified with MicPol®. 43°C (up to +170°C)	Prep & De-rust Bush & Pin Release Spray
GREASE	INTERFLON GREASE MP 1	Cart - 0057/055790 Shuttle - 0057/055793	Multipurpose heavy duty grease with MicPol®. Provides for extremely long lasting protection. -30°C (up to +145°C)	Cranks Barriers Signals
	INTERFLON GREASE OG	Aerosol - 0057/055802 Shuttle - 0057/055803	Exceptionally long lasting, transparent -complex grease with MicPol® for high loads. -10°C (up to +120°C)	053 Switch Tip Crossings Corrosion Protection OLE Equipment
	PASTE HT1200	Aerosol - 0111/120605 Tube - 0111/120604	High temp anti-seize paste -20°C (up to +1200°C)	Assembly of shafts, nuts, bolts and fittings
CLEANERS	DEGREASER EM30+	10 lts - 0057/055630	NSF approved degreaser breaks down the composition of heavy greases, oils, grime, dirt, graphite and carbon residue.	Cleaning of heavy contamination
	METAL CLEAN	Aerosol - 0057/055470	Industrial grade Metal Cleaner and Degreaser	Final Flush cleaning
	POWER WIPES	Tub - 0111/122682	Strong, industrial quality wipe saturated with a power-full heavy-duty cleaning solution	Stretchers Bars Cranks Speed Boards
	CLEAN OTR	10 ltr - 0057/093082	Organic cleaner, developed to remove leaf pectins from the rail head	Assembly of shafts, nuts, bolts & fittings
NEW PRODUCTS				
CLEANERS	FOAM CLEAN	Aerosol - TBC	Powerful fast acting foam cleaner for quick daily cleaning and degreasing of glass, acrylic glass, mirrors, plasma screens, synthetic material, metal and many other waterproof surfaces. Suitable for use in HACCP environments (NSF-A1)	Signal Lenses Plastic covers in S&C
	FIN CLEAN ALL2	10 Ltr - TBC	Versatile, highly alkaline, label-free deep cleaner with F-Active Technology for a wide range of applications. Highly concentrated, very effective and very economical to use (dilutable up to 1:200)	Signal Housings Graffiti
HARDWARE	OTR SINGLE RAIL APPLICATOR	0111/122680	OTR Dispensing Unit for Single Rail Application - Light Weight under 5kg	Rail Head treatment
	OTR DOUBLE RAIL APPLICATOR	TBC - Trial Available	OTR Dispensing Unit for Double Rail Application - Light Weight under 15kg	Rail Head treatment
	OTR RRV APPLICATOR	TBC - Trial Available	OTR RRV Applicator with SMART features	Rail Head treatment

For all technical support please contact - rail@interflon.co.uk

Rob Taylor: 07909 903358 - Alan Wright: 07808 244181 - Joe Crichton: 07355 093931