

Labour time allowance chart for warranty repair work



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1. General information

Procedures, which are not included in this labour time allowance catalogue, must be justified and prior authorisation given by SAF-HOLLAND Service department before any repair work is carried out.

Service Report

In the event of damage, always first complete the SAF-HOLLAND Service Report: available over the Internet:

www.safholland.com

SAF-HOLLAND Service Report must be completed fully and accurately (in particular the figures from the axle type plate, i.e. the serial number is absolutely necessary):

Type plate



Fig. 1: Until mid-2004

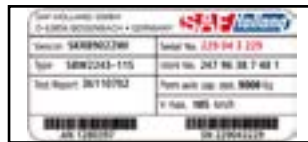


Fig. 2: From mid-2004



Fig. 3: Type plate absent

All labour time allowances are continuously updated according to technical demands. The updates are available under:

www.safholland.com

Axle types

The labour time allowance packages refer to following axle types:

Disc brake:

SK RB 9019 / 9022 INTEGRAL, BI9-19K, BI9-19K, BIL9-19K, SI9-19K, ZI9-19K, ZI11-19K, BI9-19W, BI9-19W, BIL9-19W, SI9-19W, ZI9-19W, BI9-22K01, BA9-22K01, BIL9-22K01, SI9-22K01, SI11-22K01, ZI9-22K01, ZI11-22K01, BI9-22W, BIL9-22W, SI9-22W, SI11-22W, ZI9-22W, ZI11-22W

Drum brake:

SK RS 9030 / 9037 / 9042, SK RZ 9030 / 9037 / 9042, Z9-3020, ZL9-3020, Z11-3020, ZL11-3020, S9-3718, SL9-3718, Z9-3720, ZL9-3720, Z11-3720, ZL11-3720, S9-4218, SL9-4218, S11-4220, SL11-4220, SZL11-4220, Z9-4218, ZL9-4218, Z11-4220, ZL11-4220

2. Warranty Claim Administration time (handling costs)

| Material | Replacement of | Minutes |
|----------|---|---------|
| S10001 | Administration time allowance for handling the warranty claim processing and the claim acceptance for SAF-HOLLAND-Service-Partner | 45 |
| S10002 | Administration time allowance for handling the warranty claim processing and the claim acceptance without inspection of claimed warranty parts for SAF-HOLLAND Subsidiary / National agent | 15 |
| S10003 | Administration time allowance for handling the warranty claim processing and the claim acceptance with inspection of claimed warranty parts for SAF-HOLLAND Subsidiary / National agent | 30 |
| S10010 | Additional costs (must be separately quoted in the invoice) | at cost |
| S10011 | Labour time for road side assistance | at cost |
| S10012 | Travelling kilometers for road side assistance | at cost |
| S11101 | Vehicle preparation time, once-only per vehicle including - Vehicle brought into work place - Vehicle secured in accordance with standard safety working practices - If necessary axle jacked up | 20 |

3. Cross components labour time

| Material | Replacement of | Minutes |
|----------|---|---------|
| S11102 | Check braking effect on the brake test bench | 15 |
| S20301 | 1 Wheel remove and refit | 10 |
| S30302 | 1 Twin wheels remove and refit | 15 |
| S20304 | 10 wheel bolts remove, replace and refit. The hub unit is dismantled | 20 |
| S20305 | 1 ABS Sensor remove, replace, refit and adjust | 15 |
| S20307 | 1 Complete axle remove and refit - Fit brake chambers, shock absorbers, air bags and wheels - Adjust axle alignment - Adjust running clearance of pads - Fit and adjust ABS-Sensor | 210 |
| S20308 | 1 Axle beam remove and refit - Fit hub unit, brake discs, brake callipers, brake chambers, shock absorbers, air bags and wheels - Set axle alignment - Adjust running clearance of pads - Fit and adjust ABS-Sensor | 280 |
| S20309 | 1 Air bag remove, replace and refit | 30 |
| S20310 | 1 Shock absorber remove, replace and refit | 15 |
| S20311 | 1 Lift air bag remove, replace and refit | 20 |
| S20312 | 1 Lift arm assembly including lift air bag remove, replace and refit (incl. spring bearing assembly remove and refit) | 30 |
| S20313 | HD-Bush or 3-D-bearing bush remove, replace and refit | 60 |
| S20314 | Trailing arm (MODUL suspension) remove, replace and refit | 80 |
| S20315 | Axle alignment check | 60 |
| S20316 | Each further axle alignment check | 30 |

| Material | Replacement of | Minutes |
|----------|---|---------|
| S20317 | 1 Self-steering knuckle remove, replace and refit. The axle and brake are dismantled. Steering pivot BIL / Steering screw BILL remove and refit Bush remove, replace and refit Self-steering knuckle clean, check and grease | 120 |
| S20318 | Stabilising damper for self-steering axle remove and refit | 10 |
| S20319 | Locking cylinder for self-steering axle remove and refit | 10 |
| S20320 | EBS / ABS memory print out diagnostics report | 10 |
| S20321 | Replacement of the Tire Pilot control box | 30 |
| S30201 | Replacement per the Stator/ Rotor | 20 |

4. Labour time brakes

4.1 Disc brake

| Material | Replacement of | Minutes |
|----------|---|---------|
| S20201 | 1 side Pads – remove, replace and refit - Release parking brake - Remove and refit wheel - Release brake calliper on adjuster screw - Remove pads/Refit new pads - Check brake calliper for free sliding movement - Check rubber boots - Adjust running clearance of pads | 20 |
| S20202 | 1 Brake calliper – remove, replace and refit - Release parking brake - Remove and refit wheel - Release brake calliper on adjuster screw - Remove and refit pads - Remove and refit brake chamber - Remove and refit new brake calliper - Adjust running clearance of pads | 45 |
| S20203 | 1 Hub Unit or 1 brake disc and 1 brake calliper – remove, replace and refit - Release parking brake - Remove and refit wheel - Release brake calliper on adjuster screw - Remove and refit pads - Remove and refit brake chamber - Remove and refit brake calliper - Remove and refit hub cap - Remove and refit axle nut - Remove and refit hub unit including brake disc - Disassemble and assemble hub unit and brake disc - Clean axle stub and apply fresh fitting paste - Adjust running clearance of pads - Adjust ABS-Sensor | 70 |
| S20303 | 1 Parking brake or standard brake chamber remove, replace and refit | 10 |
| S20306 | 1 Brake calliper overhaul. Brake calliper is removed from axle. - Remove, replace and refit thrust pieces, guide pins, bushes, seals and rubber boots | 80 |

4.2 Drum brake

| Material | Replacement of | Minutes |
|----------|---|---------|
| S40206 | 1 Hub and 1 brake drum remove and refit, with mounted wheel, inspect the brake on one side of the wheel <ul style="list-style-type: none"> - Release parking brake - Release brake shoes by resetting the slack adjuster - Remove and refit hub cap - Remove and refit axle nut - Remove and refit hub with brake drum and wheel - Clean axle stub and apply fresh fitting paste - Adjust the hub bearing running clearance as necessary - Adjust running clearance of brake linings | 20 |
| S40207 | 1 Hub, 1 brake drum, brake shoes and brake linings - remove, replace and refit <ul style="list-style-type: none"> - Wheel / twin wheels remove and refit - Release parking brake - Release brake shoes by resetting the slack adjuster - Remove and refit hub cap - Remove and refit axle nut - Remove and refit hub and brake drum - Remove and refit brake shoes - Remove, replace and refit brake linings - Clean brake shoes / lining mating surfaces and cover with corrosion inhibitor - Check and replace camshaft bearings as necessary (for additional labour time allowance see below) - Apply copper paste to the brake shoe anchors and cam roller journals - Remove, replace and refit brake drum from hub or machine the brake drum radius (for additional labour time allowance see below) - Replace shoe return spring and shoe retaining clamp - Machine new brake lining surface to brake drum diameter - Check, re-grease and replace hub bearing as necessary (for additional labour time allowance see below) - Clean and apply fitting paste to axle stub - Adjust the hub bearing clearance as necessary - Adjust running clearance of brake linings - Adjust ABS-Sensor | 70 |
| S40322 | 1 Camshaft inclusive bushing remove, replace and refit <ul style="list-style-type: none"> - The brake drums and shoes are dismounted - Remove and refit slack adjuster | 20 |
| S40323 | 1 Hub or 1 set hub bearings remove, replace and refit. The hub is dismounted. | 20 |
| S40324 | 1 Brake drum radius machined | 10 |
| S40325 | 1 Parking brake / standard brake chamber remove, replace and refit | 15 |
| S40326 | 1 Slack adjuster remove, replace and refit | 10 |

5. Fifth wheel and slider

| Material | Replacement of | Minutes |
|----------|--|---------|
| S81000 | Top plate replacement models F... | 15 |
| S81001 | Bracket replacement, stationary (ISO) | 80 |
| S81002 | Bracket replacement, weightsaver mount | 80 |
| S81003 | Top plate rebuilt: F17E, FW17EK | 75 |
| S81004 | Top plate rebuilt: FW3510, FW3110 | 105 |
| S81005 | Top plate rebuilt: FW0E70 | 150 |

| Material | Replacement of | Minutes |
|----------|---|---------|
| S81006 | Lock replacement: F17E,FW17EK | 30 |
| S81007 | Lock replacement:FW3510, FW3110 | 45 |
| S81008 | Lock replacement:FW0E70 | 75 |
| S81009 | Lube plate replacement | 20 |
| S81010 | Air cylinder replacement: | 15 |
| S81011 | Top Plate - Replacement-models SK.. | 15 |
| S81012 | Bracket replacement:SK-S 36.20,compl.fam. | 80 |
| S81013 | Top plate rebuilt: Model SK-HD 38.36 | 75 |
| S81014 | Lock replacement:SK-S 36.20,compl.Fam. | 30 |
| S81015 | Lock replacement:SK-HD 38.36 | 30 |
| S87002 | Sensor system complete replacement | 90 |
| S84000 | replacement Typ SK-V 36 | 60 |
| S84001 | Bracket replacement,slide ILS,SK-V 20 | 60 |

6. Landing gear

| Material | Replacement of | Minutes |
|----------|------------------------------------|---------|
| S82000 | Landing gear set replacement | 120 |
| S82001 | Replacement of 1 landing leg | 60 |
| S82002 | Replacement of 1 landing gear shoe | 20 |

7. King pin

| Material | Replacement of | Minutes |
|----------|---------------------|---------|
| S83000 | Kingpin replacement | 20 |

8. Ball race

| Material | Replacement of | Minuten |
|----------|---|---------|
| S85000 | Ball race replacement - Air and electrical cables remove and refit - Ball race remove and refit | 240 |

9. TRAKr

| Material | Replacement of | Minutes |
|----------|---|---------|
| S30303 | 1 axle shaft dismount and mount | 10 |
| S30304 | 1 half axle beam change, axle dismount | 40 |
| S30305 | 1 half axle beam change, axle installed | 135 |
| S30306 | 1 Gearbox unit change, axle installed | 240 |
| S30307 | 1 Gearbox unit change, axle dismount | 100 |
| S30308 | Gearbox oil changing | 15 |
| S30309 | 1 spline shaft checking | 15 |
| S30310 | 1 E- machine renew | 30 |
| S30311 | 1 water coolant system checking | 10 |
| S30312 | 1 Radiator changing | 15 |
| S30313 | 1 Water pump renew | 10 |
| S30314 | Coolant fluid changing | 15 |

10. EBS, ABS and braking & air suspension valves

10.1 General

| Material | Replacement of | Minutes |
|----------|--|---------|
| S30315 | General preparation/set up/admin works | 30 |

10.2 ABS systems

| Material | Replacement of | Minutes |
|----------|--|---------|
| S30202 | ABS MODAL - Electronic Control Unit (ECU) | 60 |
| S30204 | ABS MODAL - Modulator valve with 2 delivery ports | 45 |
| S30205 | ABS MODAL - Modulator valve cable | 30 |
| S30301 | ABS MODAL - Sensor extension cable | 30 |
| S40302 | ABS MODAL/Modular - Modulator valve with 3 or 6 delivery ports | 60 |
| S40304 | ABS MODAL/Modular - ISO 7638 power cable | 60 |
| S40305 | ABS MODULAR - Electronic Control Unit (ECU) | 30 |
| S40307 | ABS MODULAR - Loom - 2S/1M-2M version | 80 |
| S40309 | ABS MODULAR - Loom - 4S/2M version | 90 |
| S40310 | ABS MODAL/Modular, EBS - ABS/EBS sensors (Drum brake) | 60 |
| S40311 | ABS MODAL/Modular, EBS - ABS/EBS sensors (Disc brake) | 30 |

10.3 EBS systems & Auxiliaries

| Material | Replacement of | Minutes |
|----------|---|---------|
| S30316 | EBS SYSTEM - EB+ Gen 3 & 4.0 - Diagnosis with Diag+ / Diag++ | 30 |
| S30317 | EBS SYSTEM - EB+ Gen 3 & 4.0 - Update or configuration EB+ ECU & EOLT with Diag+ / Diag++ | 30 |
| S30319 | EBS SYSTEM - EB+ Gen 3 - Double check valve | 30 |
| S30320 | EBS SYSTEM - EB+ Gen 3 - Quick release valve | 20 |
| S40317 | EBS SYSTEM - EB+ Gen 3 - Info Point | 45 |
| S40312 | EBS SYSTEM - EB+ Gen 3 & 4.0 - Modulator and ECU assembly | 90 |
| S30321 | EBS SYSTEM - EB+ Gen 3 & 4.0 - Pressure switch/sensor | 15 |

| Material | Replacement of | Minutes |
|----------|---|---------|
| S40313 | EBS SYSTEM - EB+ Gen 3 & 4.0 - Pressure switch/sensor cable | 30 |
| S40314 | EBS SYSTEM - EB+ Gen 3 & 4.0 - Sensor extension cable | 30 |
| S40315 | EBS SYSTEM - EB+ Gen 3 & 4.0 - Power cable ISO 7638 | 60 |
| S40316 | EBS SYSTEM - EB+ Gen 3 & 4.0 - Lining Wear Sensor - LWS | 75 |
| S40318 | EBS SYSTEM - EB+ Gen 3 & 4.0 - Electronic height sensor | 30 |
| S40319 | EB+ Soft Docking system - Electronic Control Unit (ECU) | 20 |
| S40320 | EB+ Soft Docking system - Ultrasonic sensor | 30 |
| S40321 | EB+ Soft Docking system - Reversing alarm (Beeper) | 30 |
| S83001 | EB+ Soft Docking system - LED outline marker light | 30 |
| S86000 | EB+ Soft Docking system - Sensor and beeper cable | 60 |
| S86001 | EB+ Soft Docking system - Lighting and brake cable | 60 |
| S87000 | TPMS/TPMS 2.0 system - Electronic control Unit - RCU | 20 |
| S87001 | TPMS/TPMS 2.0 system - Wheel sensor (during tyre replacement) | 15 |
| S99001 | TPMS/TPMS 2.0 system - Wheel sensor (with rim and tyre disassembling) | 45 |
| S30318 | TPMS/TPMS 2.0 system - TPMS re-setting (after RCU replacement) | 30 |
| S99002 | EB+ Info Centre | 20 |
| S99003 | EB+ Info Centre cable | 30 |

10.4 Braking valves

| Material | Replacement of | Minutes |
|----------|---|---------|
| S88014 | In Line Filter | 20 |
| S88015 | Single Check Valve | 15 |
| S88016 | Pressure Protection valve | 30 |
| S88017 | 3/2 Way valve, Solenoid or Pneumactical Valve | 30 |
| S88018 | Double Check Valve | 30 |
| S88019 | Coupling Head & Protect-O | 15 |
| S88020 | Shut-Off Cock | 15 |
| S88021 | Quick release Valve c/w double check valve | 45 |
| S88022 | REV (Relay Emergency Valve) / Combined REV | 45 |
| S88023 | Variable Load valve | 30 |
| S88024 | Shunt or Park valve | 30 |
| S88025 | Control Valve | 30 |
| S88026 | Park & Shunt Valve Combined | 45 |
| S88028 | Trailer Control Module - TrCM / TrCM+ | 60 |
| S88029 | Trailer Emergency Module - TEM | 45 |
| S88030 | Simple Relay Valve | 45 |
| S88031 | Quick Release Valve | 30 |
| S88032 | Regulating Valve | 30 |
| S40301 | Pressure Limiting Valve | 30 |
| S88033 | Trailer Emergency Module - TEM+ | 60 |
| S88034 | Pressure Switch | 15 |
| S88036 | Mechanical Load Sensing Valve | 60 |
| S88037 | Pneumatic Load Sensing Valve | 75 |
| S88005 | Air Tank | 45 |

10.5 Air suspension valves

| Material | Replacement of | Minutes |
|----------|--|---------|
| S88007 | Raise & lower valve - Colas/Colas+ | 45 |
| S88008 | Integrated Lift-Axle System - ILAS ® I /ILAS ® III | 45 |
| S88009 | Integreted Lift-Axle System ILAS ® E & ILAS ®E+ | 30 |
| S88010 | ILAS E repair kit (solenoid) | 15 |
| S88011 | Levelling Valve | 30 |
| S88012 | Levelling valve with Height Limitation | 60 |
| S88013 | Levelling valve with 2nd ride height | 45 |

10.6 Air treatment products

| Material | Replacement of | Minutes |
|----------|------------------|---------|
| S88002 | CONSEP | 30 |
| S88003 | Single air dryer | 45 |



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