

## 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

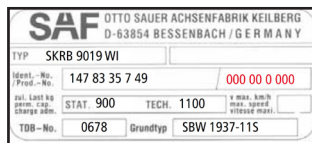


Fig. 1: Until mid-2004



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 - 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 - 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 - 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		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	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
S88027	Pilot valve, Pneumatic	30
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	3/2-Way Solenoid Valve	30
S88034	Pressure Switch	15
S88035	3/2-Way Valve	30
S88036	Mechanical Load Sensing Valve	60

Material	Replacement of	Minutes
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	Integrated 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



## Customer Information

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