

SADEV ST8217051133 – Boîte de vitesses / gearbox Dossier technique / technical manual

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Pour tout renseignement complémentaire, vous pouvez contacter notre service commercial

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GENERAL DETAILS

The transmission kit is composed of a 6 front speed + reverse gearbox. The weight of the complete gearbox is 40kg.

The kit includes:

- the self locking differential with external preload adjustment
- the lubrication system
- the contactless angle sensor for the barrel
- the magnet shifting
- the reverse gear locking solenoid
- the slave cylinder

RATIO CHARTS

	1 st	2 nd	3 rd	4 th	5 th	6 th
Primary line	12 (F9052109)	13 (F9052165)	22 (F9052182)	21 (F9052190)	26 (F9052155)	29 (F9052156)
Secondary Line	28 (F9052258)	23 (F9052265)	31 (F9052282)	24 (F9052290)	25 (F9052255)	24 (F9052256)
	Ref. J829052P03915F	Ref. C8217P1323915F	Ref. C8217P2231915F	Ref. C8217P2124915F	Ref. C8214P2625915F	Ref. C8214P2924915F

Reverse gear	
Primary	15
Idler	25
Secondary	44

SADEV FINAL DRIVE			
Ref : CPL15579052021	15	x	57

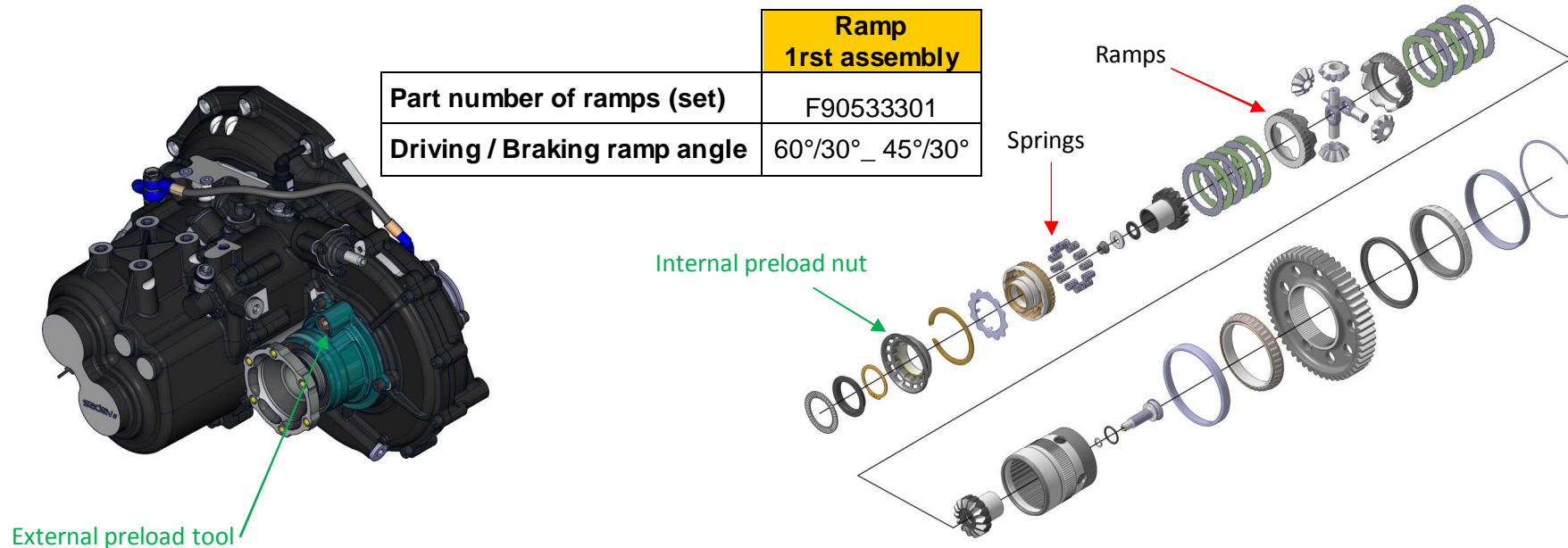
CLUTCH SHAFT
Réf: F9052617

DIFFERENTIAL SET-UP

The differential is a self-locking type, with 6 frictions faces on each side and pressure plates with ramps, acting either for driving or braking phasis. The running clearance in the differential = $0.1 \pm 0.05 \text{ mm}$.

The preload may be adjusted by tightening / untightening the preload nut (internal or external) or by changing the springs (**12 springs**).

The report ratio may be adjusted by changing the ramps : [contact us for the available list of the ramps](#).



At delivery, the preload of the differential is adjusted at your request, with no running-in and the cold measured preload.

- If the run-in and hot measured preload decreases between 30 to 40Nm, it will be necessary to change all springs.
- If the run-in and hot measured preload decreases than 40 Nm, it will be necessary to change all springs and the friction/plate disks.





Note Bene: Preload decrease from approximately 15% after a 50 kilometers of running.

Note Bene: the cold measured preload (workshop) is approximately 15% higher than warm measure.

PRINCIPLE OF DIFFERENTIAL PRELOAD ADJUSTMENT ON THE CAR:



It is important to note that the lock nut is made by "clicks" (20 "clicks" per revolution). Then, it is therefore to stop on a "click" to be sure of the good lock nut desired position.

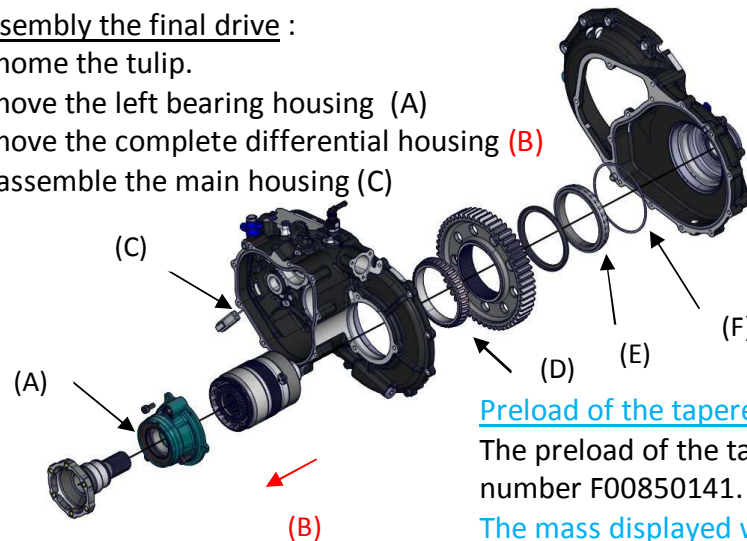
- It 's not necessary to remove the left driveshaft.
- Lock the right driveshaft and the propshaft
- Use the hex-head spanner of 8mm in order to tighten/untighten the nut F9052323 . Then you can adjust the preload :
 - o By turning clockwise  in order to decrease the preload
 - o By turning anti-clockwise  in order to increase the preload

For information, window of adjustment from 50 to 170N.m with 12 friction faces

PRELOAD ADJUSTMENT OF TAPERED BEARINGS DIFFERENTIAL:

Disassembly the final drive :

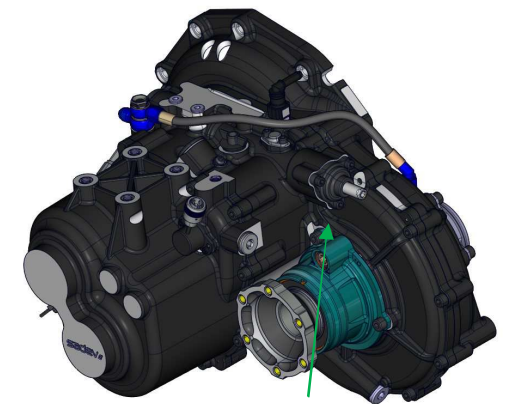
- 1-remome the tulip.
- 2-remove the left bearing housing (A)
- 3-remove the complete differential housing (B)
- 4-disassemble the main housing (C)



Preload of the tapered bearings :

The preload of the tapered bearings (D) and (E) is ajusted by the bearing gauge set (F) part number F00850141.

The mass displayed with a peson around the outside diameter $\varnothing 106 = 4.4$ to 6.2kg



External preload tool
Part number F90525323



LUBRICATION

Oil capacity: 1.5L (without the cooling circuit)
 Lubrication: by pump (see exploded view lubrication)

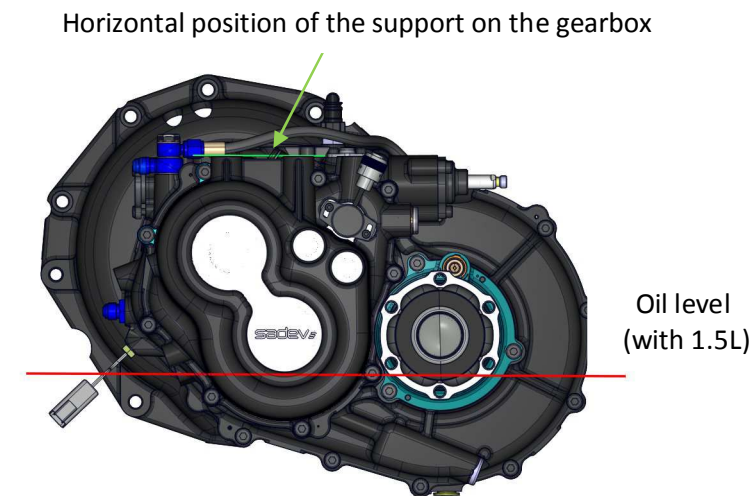
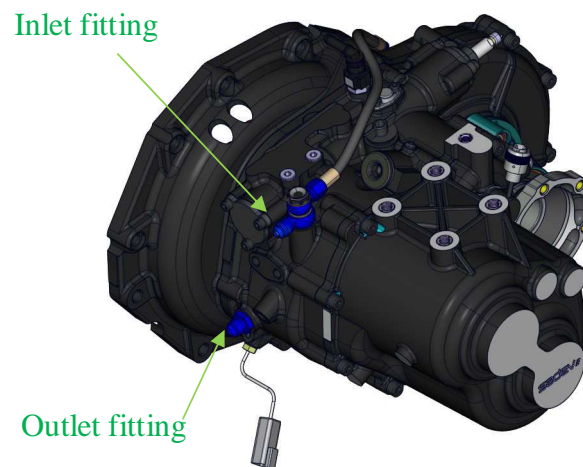
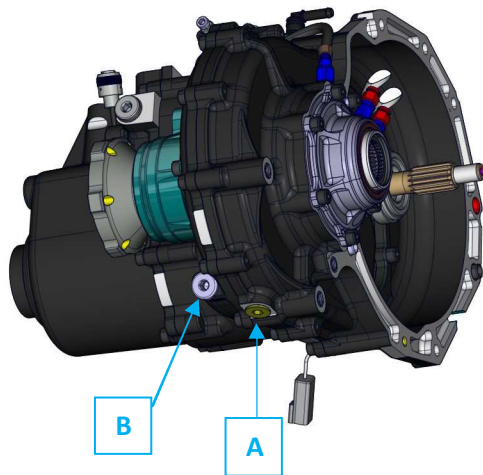
1 st drain	Drain Frequency	Viscosity
After a 50 km running-in	After each meeting or 150km of special stage	75w140

Cooler of the GEARBOX:

- Not delivered with the gearbox
- If you install a cooler, add oil matching the cooling circuit capacity

TO DRAIN THE GEARBOX:

- Disassemble the drain magnet plug (A), and clean it up
- Suction screen (pump option): SADEV suction screen (B) ⇒ **CLEAN THE SUCTION SCREEN EVERY DRAIN**



WASHING UNDER PRESSURE:

-When the gearbox is removed, seal correctly all the openings, to prevent any water drops into the gearbox.

SENSORS

CONTACTLESS ANGLE SENSOR FOR BARREL (2015012): +0.5V to +4.5V

Note: Sensor adjusted in our company = $1.1V \pm 0.05$ on neutral

- A- Red wire : +5Vdc
- B- Black wire : Ground
- C- Brown wire : signal between 10 and 90% of 5Vdc



Barrel angle °deg	Voltage (V)	Gear
0	0.57	R
48	1.1	N
96	1.63	1
144	2.16	2
192	2.69	3
240	3.22	4
288	3.75	5
336	4.28	6

TEMPERATURE SENSOR (F00892001) : (Type PT1000 thermistor)



GEAR SHIFTING

IN MANUAL: Pull on the selector axle to shift up the gear.

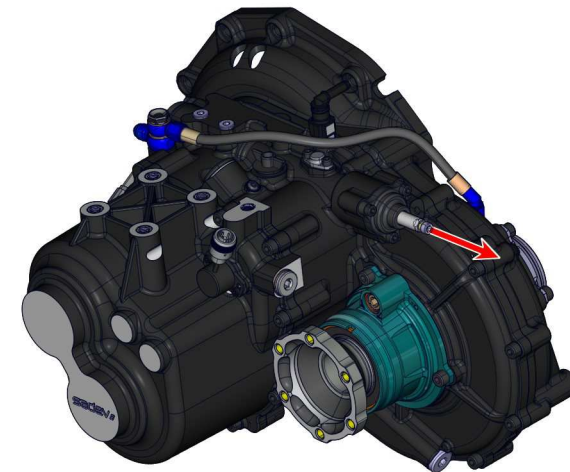
GRID: R-N-1-2-3-4-5-6

TRAVEL OF THE SELECTOR AXLE: **18mm**


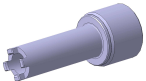


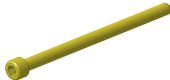

- From R to N
- From N to 1^{rst}
- Each gear from 1^{rst} to 6th

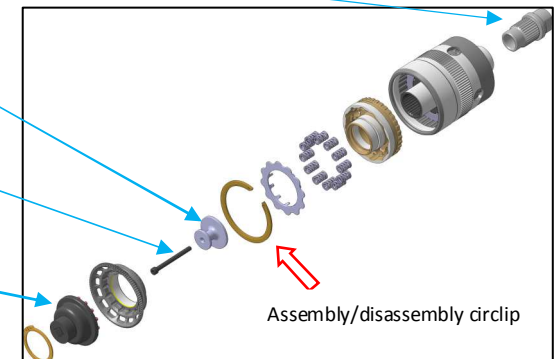
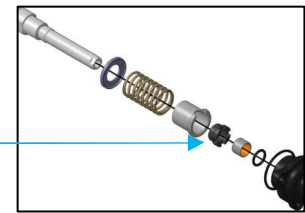
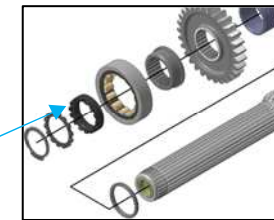
REVERSE GEAR LOCKING SYSTEM :

- From N to 1^{rst} => push the button on the lock rod (on the handwheel or on the gear level)
- From N to R => push the button on the lock rod (on the handwheel or on the gear level)
- From R to N => push the button on the lock rod (on the handwheel or on the gear level)
- From 1^{rst} to N => push the button on the lock rod (on the handwheel or on the gear level)



SPECIAL TOOLS

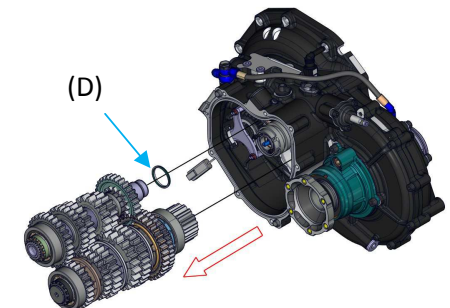
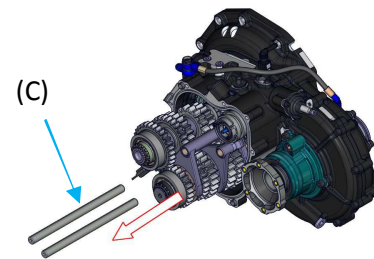
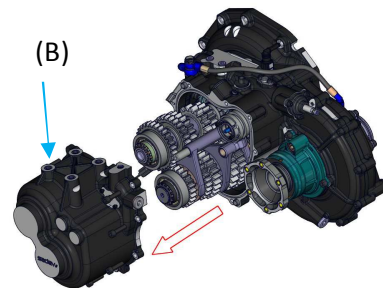
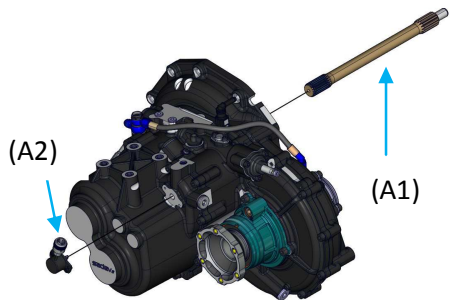
	Reference SADEV	FOUT9045200	Socket for primary and secondary shaft nut
	Reference SADEV	FOUT9046013	Socket for selector axle nut
	Reference SADEV	FOUT9053024	31 splines Socket
	Reference SADEV	FOUT9052005	Compression washer (for assembly/disassembly the circlip of differential)
	Reference SADEV	0301359	Bolt CHC thread M6 length 70mm (for assembly/disassembly the circlip of differential)
	Reference SADEV	FOUT9053016	Preload adjusting wrench



INFORMATION ABOUT DISASSEMBLY

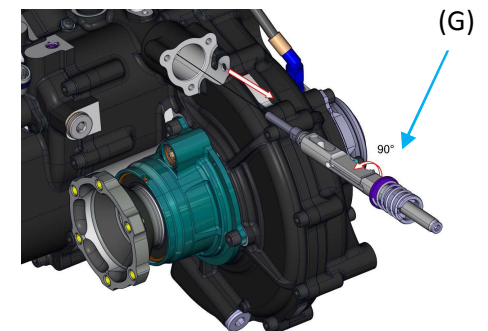
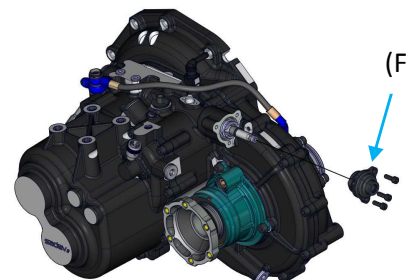
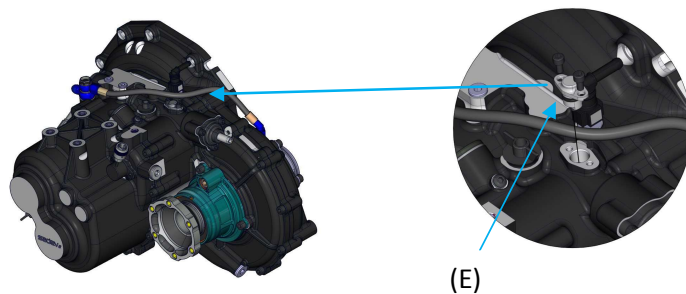
REMOVING THE GEARTRAINS :

- 1- Remove the clutch shaft(A1), and disconnect the contactless angle sensor. (A2)
- 2- Unscrew M8 bolts and remove the cluster housing. (B)
- 3- Remove 2 forks axles (C) and disconnect forks around the barrel.
- 4- Remove the both geartrains simultaneously ,
 → Pay attention : the NU305 shim F9046102 (D) is assembled freely.



REMOVING THE SELECTOR AXLE :

- 1- Remove the complete dual pin rock (E)
- 2- Remove the selector closing block F9046437 (E)
- 3- Turn the selector axle about 90° on the anticlockwise (G) and remove the axle.



SERVICE PLANNING

The service planning of the gearbox is based on SADEV experience and from the results of the various development campaigns of the ST82-17 gearbox. The information given about service planning can be updated in the near future.

PARTS	ACTION	FREQUENCY
Gearbox check-up	Complete rebuilding in order to check all the gears and the differential	800-1000 km, its depends that you use the category (Rallye/Rallycross) 2000 km for an application on the circuit

SADEV propose to the customers 2 REBUILD KITS:

KIT	MAINTENANCE
KITREVST821704	Control primary and secondary geartrain, selector, differential (all safety fixing components, shafts nuts, clips, O'rings seals)
KITRLTST821704	Bearings :Control and/or change all bearings of the gearbox

Detail of the rebuild kit **KITREVST821704** : (x)

PART NUMBER	DESCRIPTION	Qty	Attribution	PART NUMBER	DESCRIPTION	Qty	Attribution
0601025	Ø33 circlip	1	Primary geartrain	0599061	BS Ø6 seal washer	1	Gear selector
9907079	Snap ring	1	Primary geartrain	0203059	BS Ø24 seal washer	1	Gear selector
0206008	Ø30x40x7 lip seal	1	Primary geartrain	0201017	Ø10x2.5 O'ring	1	Selector axle
F9046602	Spring ring	1	Primary geartrain	0201009	Ø12x2 O'ring	1	Selector axle
0601025	Ø33 circlip	1	Secondary geartrain	0201164	Ø29x2 O'ring	1	Selector axle
9907079	Snap ring	1	Secondary geartrain	0201102	Ø34x2 O'ring	1	Selector axle
0201129	Ø25x2.5 O'ring	1	Differential	0201282	Ø44x2 O'ring	1	Lubrication
0499009	M12(x125) Simmonds nut	1	Differential	0201135	Ø10x2 O'ring	1	Lubrication
0599002	16.1x23x1 drain plug seal	2	Housings	0203055	Ø10x14x3 Seal bushing	1	Lubrication
F1402058	Magnet drain plug	1	Housings	0499010	M6 Simmonds nut	2	Lubrication
0201181	Ø260x2.5 O'ring	1	Housings	0202080	Ø11x1.5 O'ring viton	1	Lubrication
0201044	Ø106x2 O'ring	1	Housings	0206081	Ø55x80x10 Viton double lip seal	1	Housings
0206013	Ø52x68x8 lip seal	1	Housings				
0201039	Ø214x2 O'ring	1	Housings				
0201297	Ø102x2 O'ring	1	Housings				
0202068	Ø41x3 O'ring	1	Housings				
0201101	Ø11x2 O'ring	1	Housings				
0201122	Ø17x1.5 O'ring	1	Housings				

Detail of the rebuild kit **KITRLTST821704** : (xx)

PART NUMBER	DESCRIPTION	Qty	Attribution
0103024	NU 207 ECP bearing	1	Primary geartrain
0103029	NU 305 ECP	1	Primary geartrain
0105066	K40x45x13 bearing	2	Secondary geartrain
0105045	K47x52x17 bearing	4	Secondary geartrain
0106027	HK 50/20 bearing	1	Secondary geartrain
0103024	NU 207 ECP bearing	1	Secondary geartrain
F9046204	NJ208 bearing	1	Secondary geartrain
0101004	6004 bearing	1	Gear selector
0102024	EC-12775 bearing	1	Differential
5001002	EC-12218 bearing	1	Differential
0199042	AXK1730 needle thrust bearing	1	Differential
0199049	AXK5070 needle thrust bearing	1	Differential
0101135	61910 bearing	1	Housings
0101128	61905 bearing	1	Housings
0106021	Hk2016 bearing	1	Housings
0101073	Ball bearing 6010	1	housings

IN SADEV WORKSHOP REBUILDING

- The gearboxes are delivered plumbed and numbered.
- SADEV will adopt a careful attitude when receiving a gearbox without any 'SADEV' seals. This will also be effective if the gearbox shows minor or major damages.

Return gear boxes to revision :

At the time of the return of the gearboxes in our buildings, a certain procedure of delivery has to be respected, so that our intervention can be total, and practical (casing 'closed' for passage to the bench). We must receive the complete product as described below:

- Gear box drained and cleaned.
- Release bearing in place.
- Oil pump in place.
- Entry and exit of lubrication closed by plugs designed for this purpose (Goodridge, SpeedFlow...)
- Shifters and reverse gears locking solenoid, in place.
- Drain plug and drain plug seal in place.
- Differential in place.
- A card specifying the kilometres of the special stages and connection since the last service, available at the end of the technical manual.

Administrative procedure:

1. Contact our sales department
2. APPROXIMATELY 2 TO 3 WEEKS OF DELIVERY TIME MUST BE CONSIDERED, [please confirm with our sales department](#).

PERSONAL REVISION

After sale parts for customers who want to proceed a revision by themselves, are delivered only by SADEV sales service.

SADEV IS NOT RESPONSIBLE FOR ANY DAMAGE FOLLOWING A REVISION NOT EXECUTED IN A SADEV AGREED TECHNICAL SERVICE

Fiche navette boîte de vitesses / Card-index technical following

INFORMATIONS	
TEAM	
N° de boîte de vitesses / Gearbox N°	
Date de départ /Starting date	
Date de retour souhaitée / Date required	
Adresse de livraison / Delivery adress	
Adresse de facturation / Invoice adress	
Spécifications demandées / required Commentaire sur la revision / Comments on product	

Set-up actuel /Current set-up

Rapports / Gear ratio		
R	Z1	Z2
1		
2		
3		
4		
5		
6		
Autobloquant / Differential		
Accélération / Drive		
Freinage / Brake		
Precharge / Preload (Nm)		

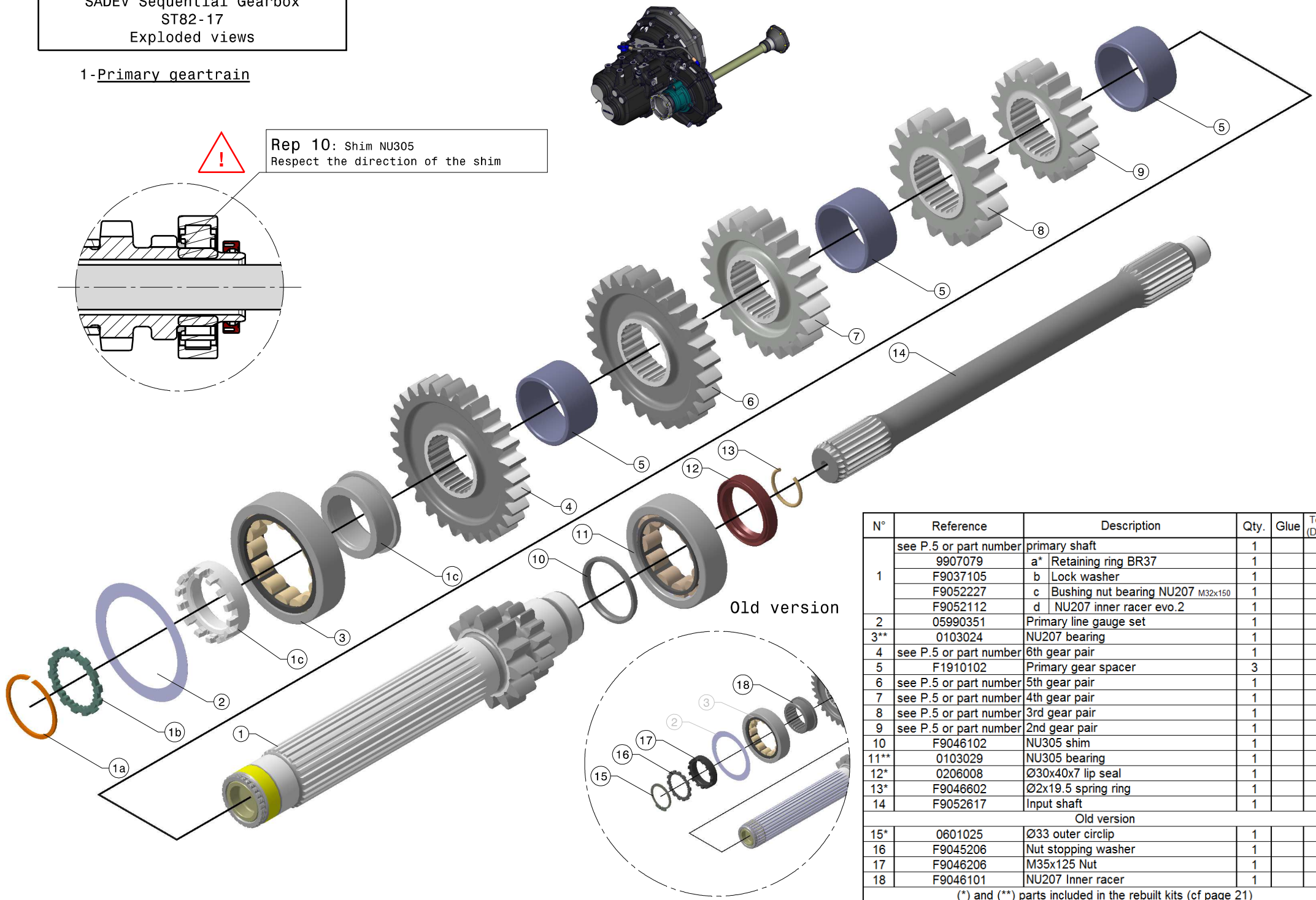
Set-up demandé/ Required set-up

Rapports / Gear ratio		
R	Z1	Z2
1		
2		
3		
4		
5		
6		
Autobloquant / Differential		
Accélération / Drive		
Freinage / Brake		
Precharge / Preload (Nm)		

Km parcourus depuis la dernière révision Usage (km) since last service	
Type d'huile utilisé / Oil type used	
Max temperature	

SADEV Sequential Gearbox
ST82-17
Exploded views

1-Primary geartrain



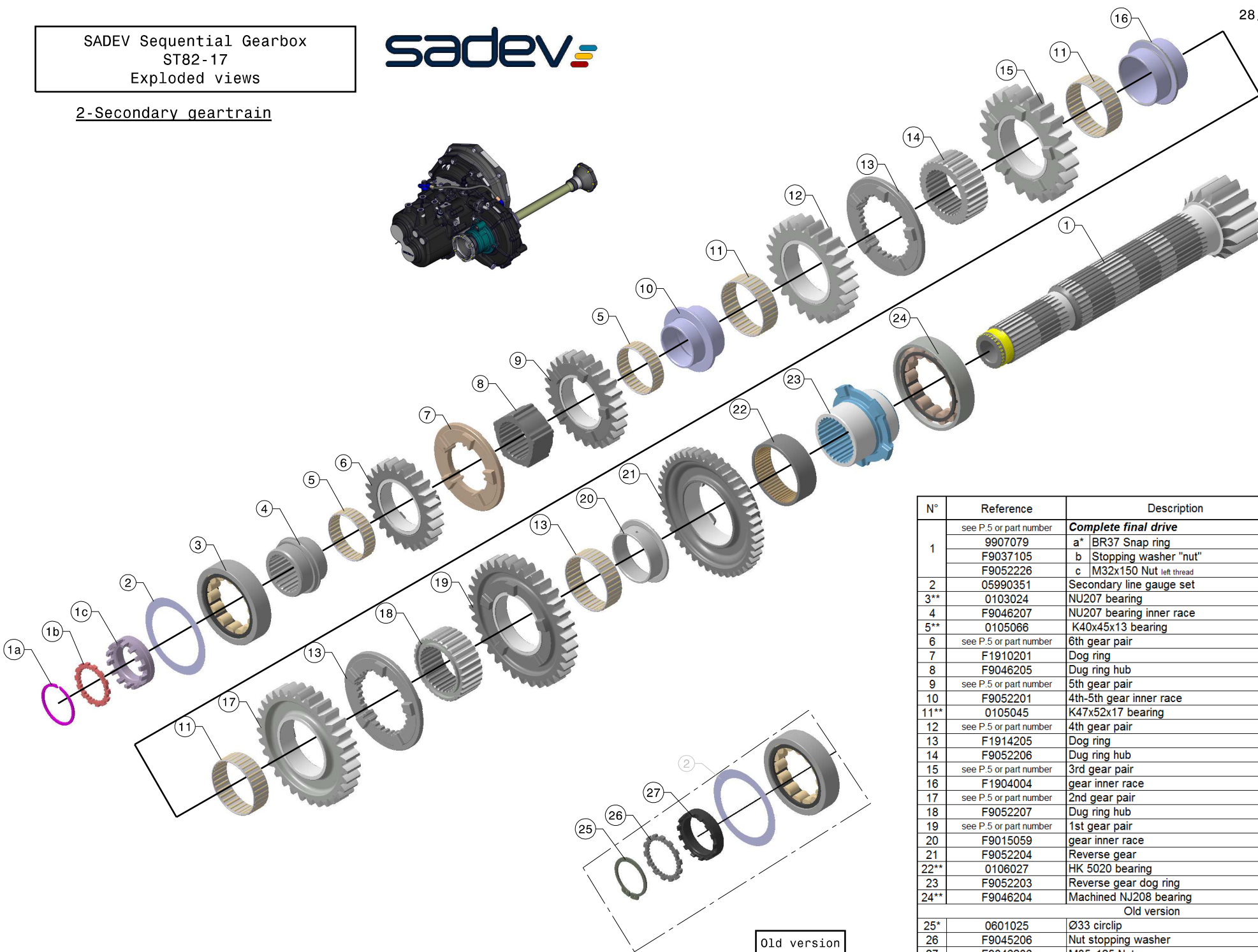
N°	Reference	Description	Qty.	Glue	Torque (DaN.m)
1	see P.5 or part number	primary shaft	1		
	9907079	a* Retaining ring BR37	1		
	F9037105	b Lock washer	1		
	F9052227	c Bushing nut bearing NU207 M32x150	1		18
	F9052112	d NU207 inner racer evo.2	1		
2	05990351	Primary line gauge set	1		
3**	0103024	NU207 bearing	1		
4	see P.5 or part number	6th gear pair	1		
5	F1910102	Primary gear spacer	3		
6	see P.5 or part number	5th gear pair	1		
7	see P.5 or part number	4th gear pair	1		
8	see P.5 or part number	3rd gear pair	1		
9	see P.5 or part number	2nd gear pair	1		
10	F9046102	NU305 shim	1		
11**	0103029	NU305 bearing	1		
12*	0206008	Ø30x40x7 lip seal	1		
13*	F9046602	Ø2x19.5 spring ring	1		
14	F9052617	Input shaft	1		
Old version					
15*	0601025	Ø33 outer circlip	1		
16	F9045206	Nut stopping washer	1		
17	F9046206	M35x125 Nut	1		
18	F9046101	NU207 Inner racer	1		

(*) and (**) parts included in the rebuilt kits (cf page 21)

SADEV Sequential Gearbox
ST82-17
Exploded views



2-Secondary geartrain



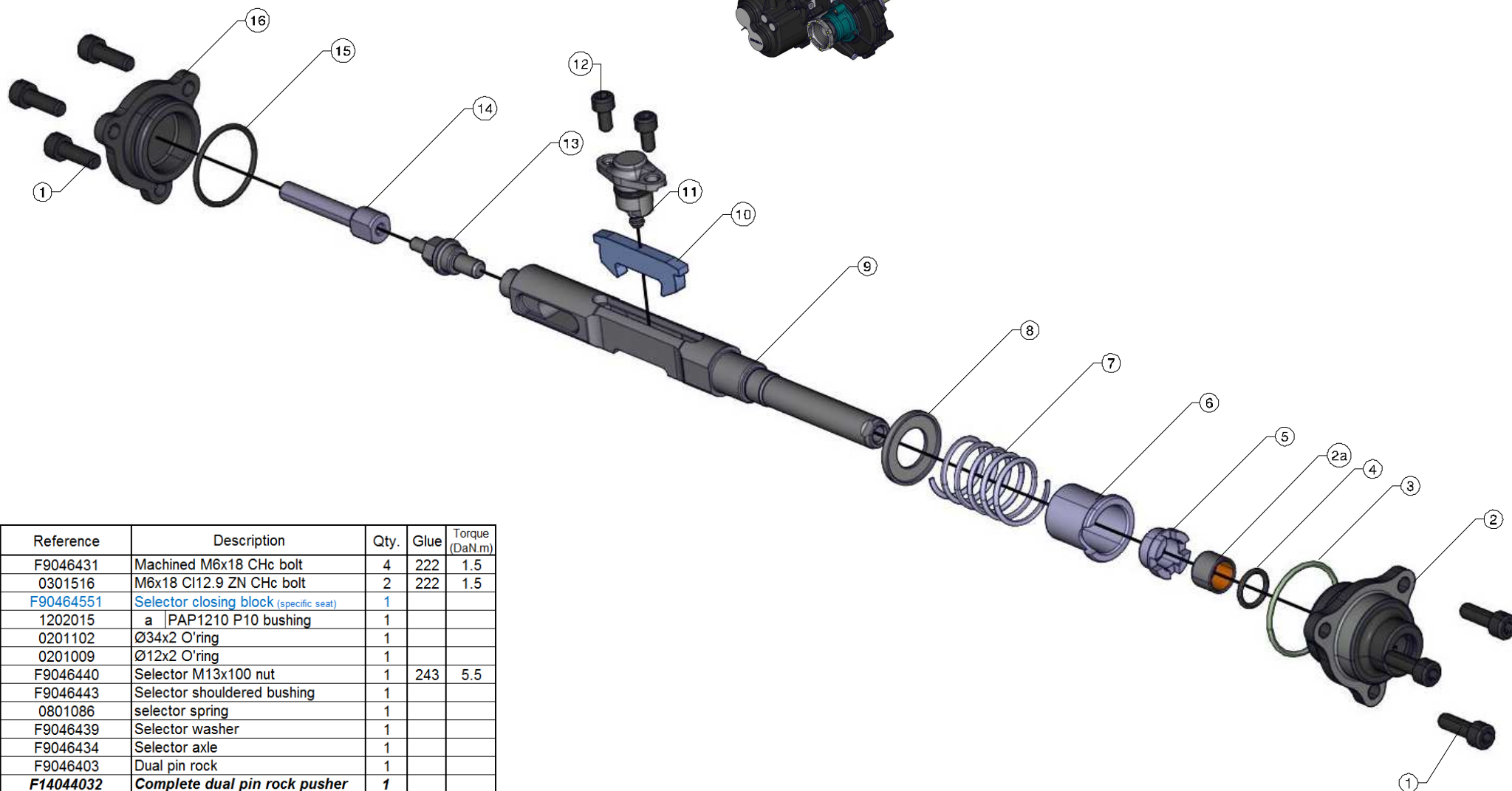
N°	Reference	Description	Qty.	Glue	Torque (DaN.m)
1	see P.5 or part number	Complete final drive	1		
	9907079	a* BR37 Snap ring	1		
	F9037105	b Stopping washer "nut"	1		
	F9052226	c M32x150 Nut left thread	1		18
2	05990351	Secondary line gauge set	1		
3**	0103024	NU207 bearing	1		
4	F9046207	NU207 bearing inner race	1		
5**	0105066	K40x45x13 bearing	2		
6	see P.5 or part number	6th gear pair	1		
7	F1910201	Dog ring	1		
8	F9046205	Dug ring hub	1		
9	see P.5 or part number	5th gear pair	1		
10	F9052201	4th-5th gear inner race	1		
11**	0105045	K47x52x17 bearing	4		
12	see P.5 or part number	4th gear pair	1		
13	F1914205	Dog ring	2		
14	F9052206	Dug ring hub	1		
15	see P.5 or part number	3rd gear pair	1		
16	F1904004	gear inner race	1		
17	see P.5 or part number	2nd gear pair	1		
18	F9052207	Dug ring hub	1		
19	see P.5 or part number	1st gear pair	1		
20	F9015059	gear inner race	1		
21	F9052204	Reverse gear	1		
22**	0106027	HK 5020 bearing	1		648
23	F9052203	Reverse gear dog ring	1		
24**	F9046204	Machined NU208 bearing	1		
Old version					
25*	0601025	Ø33 circlip	1		
26	F9045206	Nut stopping washer	1		
27	F9046206	M35x125 Nut	1		

(*) and (**) parts included in the rebuilt kits (cf page 21)

SADEV Sequential Gearbox
ST82-17
Exploded views



3-Manual selector axle

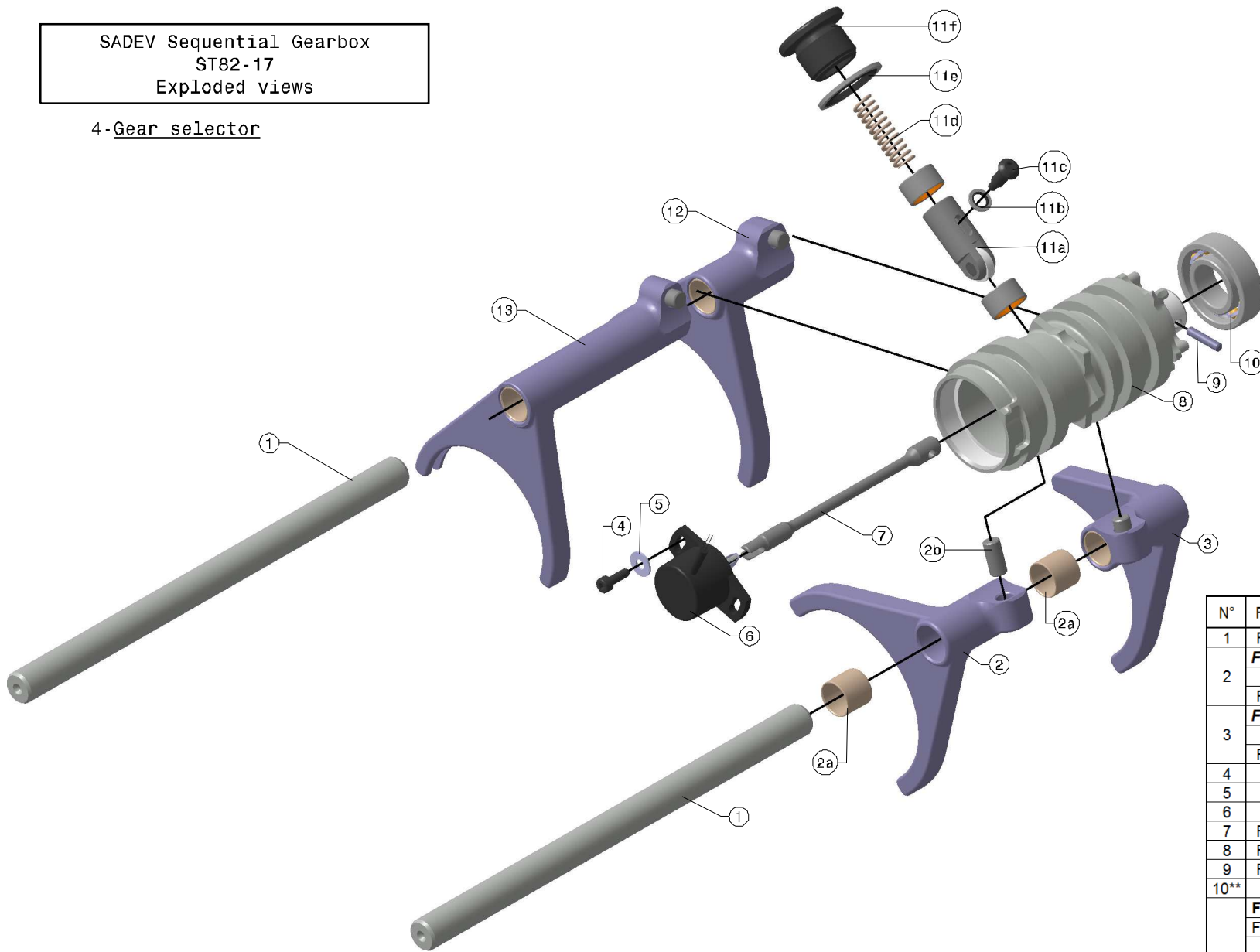


N°	Reference	Description	Qty.	Glue	Torque (DaN.m)
1	F9046431	Machined M6x18 CHc bolt	4	222	1.5
	0301516	M6x18 CI12.9 ZN CHc bolt	2	222	1.5
2	F9046451	Selector closing block (specific seat)	1		
	1202015	a PAP1210 P10 bushing	1		
3*	0201102	Ø34x2 O'ring	1		
4*	0201009	Ø12x2 O'ring	1		
5	F9046440	Selector M13x100 nut	1	243	5.5
6	F9046443	Selector shouldered bushing	1		
7	0801086	selector spring	1		
8	F9046439	Selector washer	1		
9	F9046434	Selector axle	1		
10	F9046403	Dual pin rock	1		
	F14044032	Complete dual pin rock pusher	1		
11	0801026	Spring	1		
	0201017*	Ø10x2.5 O'ring	1		
12	0301513	M5x10 CI12.9 ZN CHc bolt	2	222	1
13	F9046445	Selector axle bolt	1	243	
14	F90464381	Magnet equipped axle extension	1	243	
15*	0201164	Ø29x2 O'ring	1		
16	F9046453	Closing plate the selector	1		

(*) and (**) parts included in the rebuilt kits (cf page 21)

SADEV Sequential Gearbox
ST82-17
Exploded views

4-Gear selector



N°	Reference	Description	Qty.	Glue	Torque (DaN.m)
1	F9052419	Forks axle	2		
	F90524261	Complete 3-4 fork	1		
2	1202021	a PAP1515 P10 bushing	2		
	F0077120	b Selector pin	1		
	F90524281	Complete reverse fork	1		
3	1202021	PAP1515 P10 bushing	2		
	F0077120	Selector pin	1		
4	0301512	M4x10 CI12.9 ZN CHc bolt	2		
5	0502023	Ø4 washer	2		
6	2015012	Contactless angle sensor IP65	1		
7	F9052418	Potentiometre axle	1		
8	F9052400	Barrel	1		
9	F9046415	Potentiometre axle pin	1		
10**	0101004	6004 bearing	1		
	F90464171	Complete indexor	1		
11	F90464172	a indexor	1		
	0599061	b* BS Ø6 seal washer	1		
	F9046418	c Rotation stop bolt	1	577	
	0801046	d Indexor spring	1		
	0203059	e* BS Ø24 seal washer	1		
	F9046419	f Indexor plug	1		5.5
	F90524151	Complete 1-2 fork	1		
12	1202021	PAP1515 P10 bushing	2		
	F0077120	Selector pin	1		
	F90524241	Complete 5-6 fork	1		
13	1202021	PAP1515 P10 bushing	2		
	F0077120	Selector pin	1		

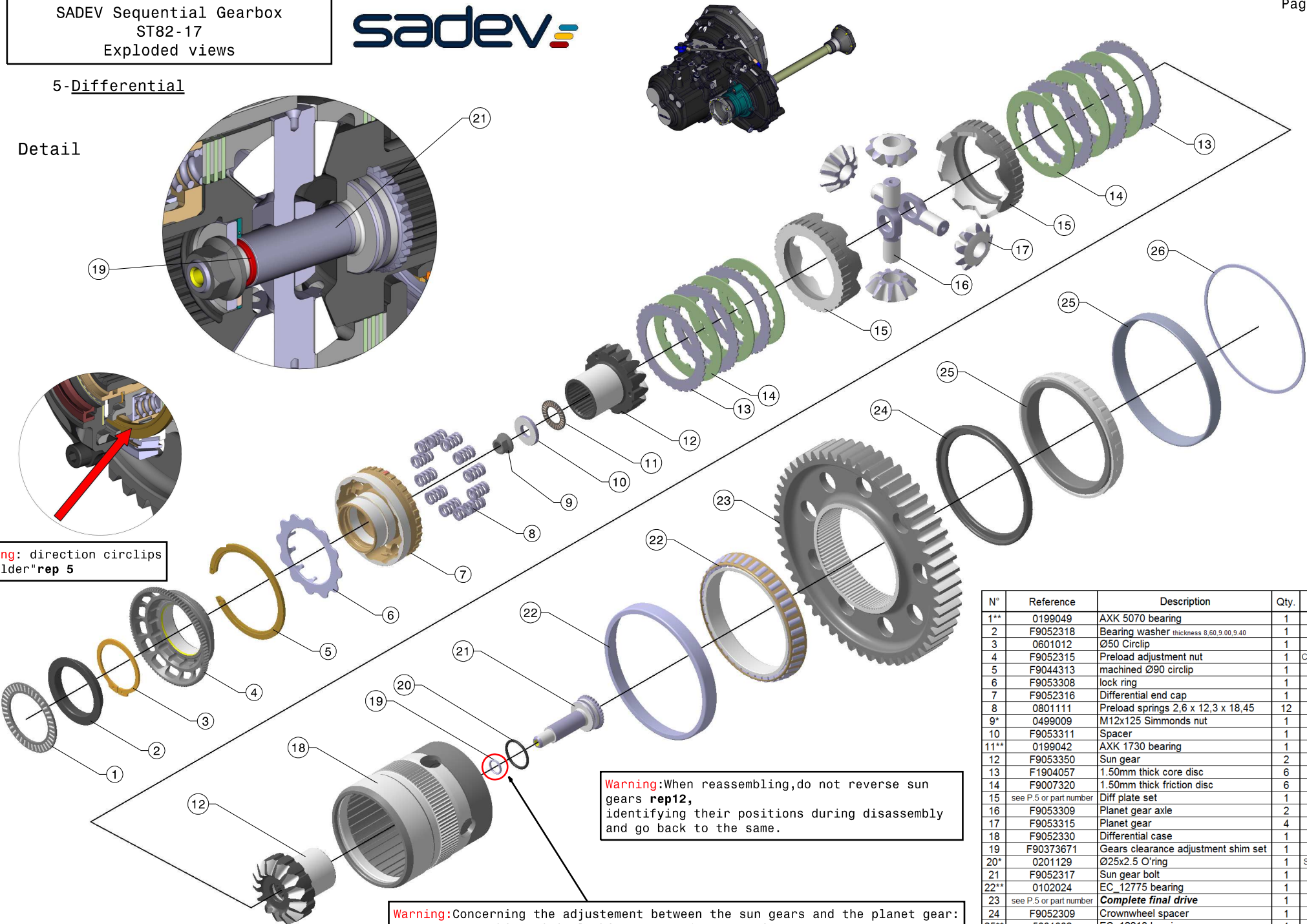
(*) and (**) parts included in the rebuilt kits (cf page 21)

SADEV Sequential Gearbox
ST82-17
Exploded views



5-Differential

Detail



Warning: direction circlips "shoulder" **rep 5**

Warning: When reassembling, do not reverse sun gears **rep 12**, identifying their positions during disassembly and go back to the same.

Warning: Concerning the adjustment between the sun gears and the planet gear: you must use this original shim **rep 19**. After mounting, you must have an axial clearance on the sun gears $=0.1\text{mm}^{+0.2}_0$

N°	Reference	Description	Qty.	Glue	Torque (DaN.m)
1**	0199049	AXK 5070 bearing	1		
2	F9052318	Bearing washer thickness 8.60,9.00,9.40	1		
3	0601012	Ø50 Circlip	1		
4	F9052315	Preload adjustment nut	1	Cop.grease	
5	F9044313	machined Ø90 circlip	1		
6	F9053308	lock ring	1	oil	
7	F9052316	Differential end cap	1		
8	0801111	Preload springs 2,6 x 12,3 x 18,45	12		
9*	0499009	M12x125 Simmonds nut	1	243	4
10	F9053311	Spacer	1		
11**	0199042	AXK 1730 bearing	1		
12	F9053350	Sun gear	2		
13	F1904057	1.50mm thick core disc	6	oil	
14	F9007320	1.50mm thick friction disc	6	oil	
15	see P.5 or part number	Diff plate set	1		
16	F9053309	Planet gear axle	2		
17	F9053315	Planet gear	4		
18	F9052330	Differential case	1		
19	F90373671	Gears clearance adjustment shim set	1		
20*	0201129	Ø25x2.5 O'ring	1	Sil.Grease	
21	F9052317	Sun gear bolt	1		
22**	0102024	EC_12775 bearing	1		
23	see P.5 or part number	Complete final drive	1		
24	F9052309	Crownwheel spacer	1		
25**	5001002	EC_12218 bearing	1		
26	F00850141	Bearing gauge set	1		

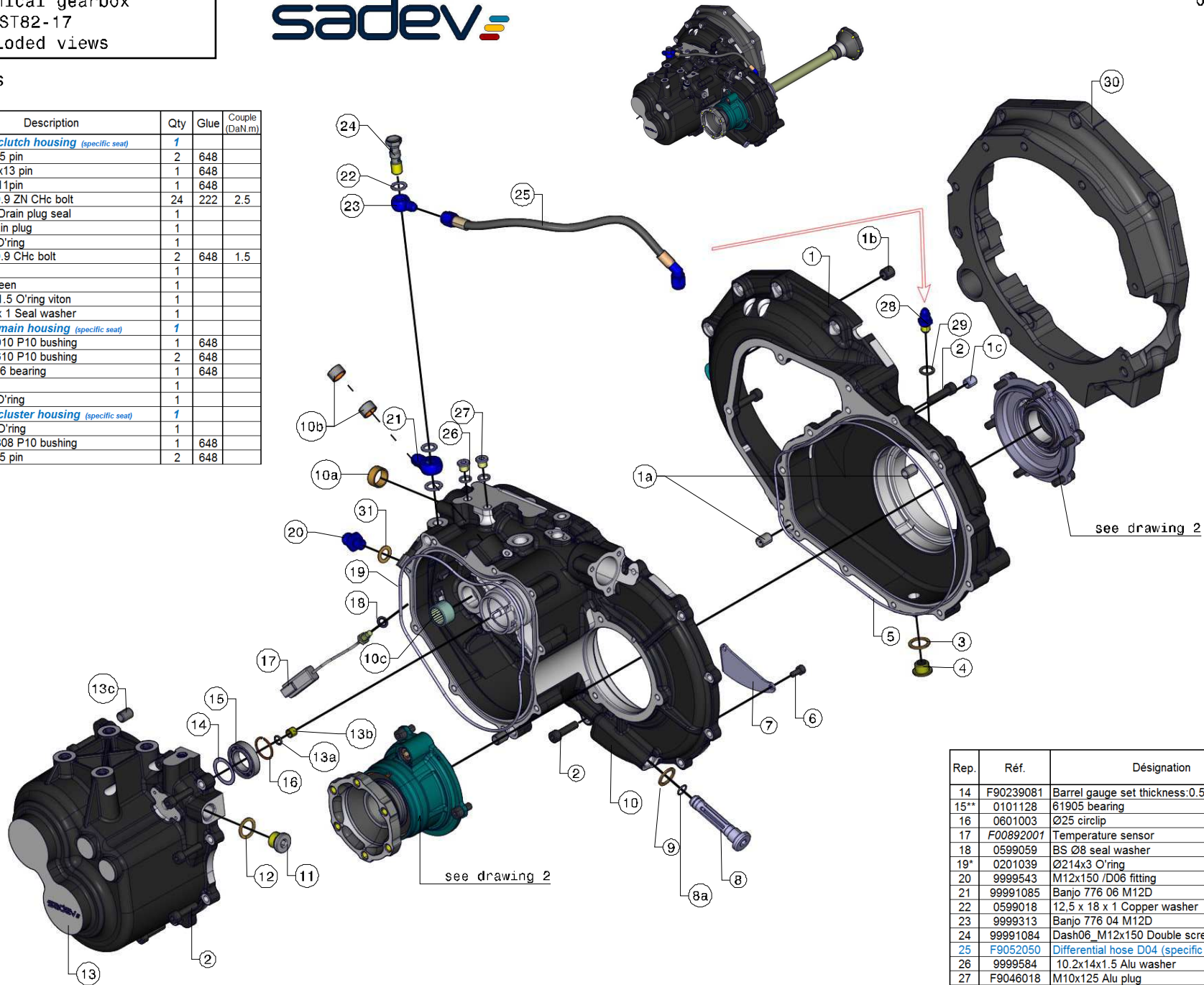
(* and **) parts included in the rebuilt kits (cf page 21)

Mechanical gearbox
ST82-17
Exploded views



6-Housings

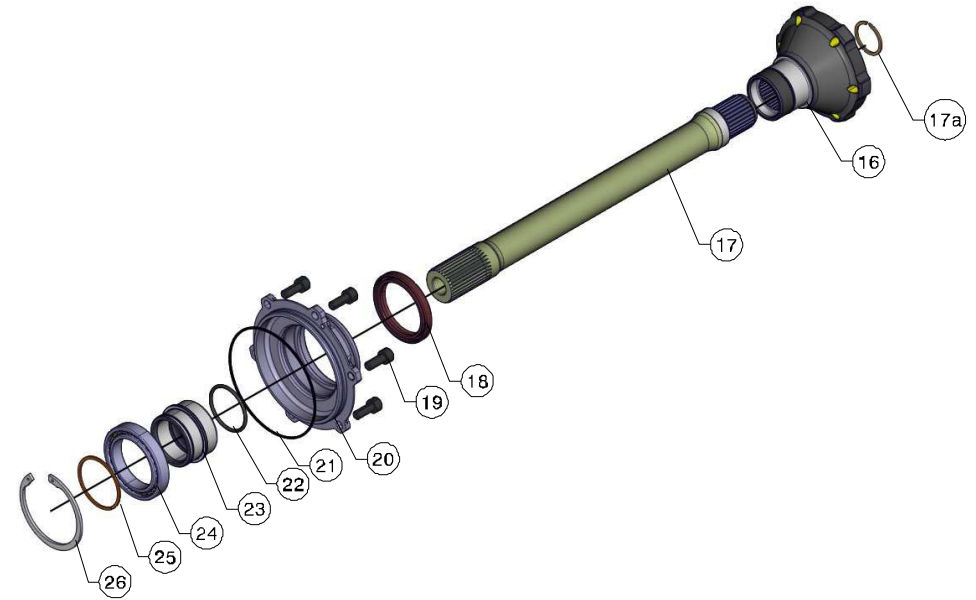
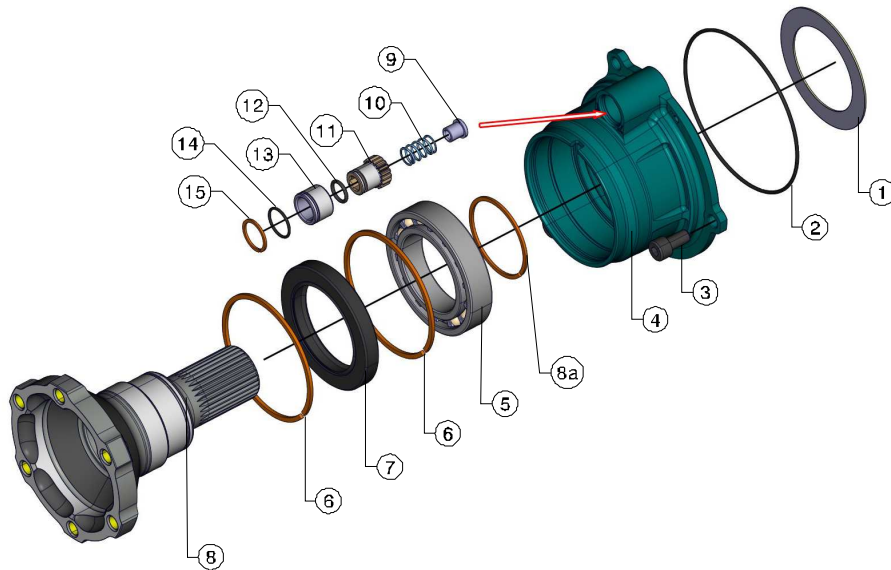
Rep.	Ref.	Description	Qty	Glue	Couple (DaN.m)
1	F90520221	Complete clutch housing (specific seat)	1		
	F0077229	a Ø12x15 pin	2	648	
	5099076	b Ø10.2x13 pin	1	648	
	F9001922	c Ø8.2x11pin	1	648	
2	0301293	M8x30 cl10.9 ZN CHc bolt	24	222	2.5
3*	0599002	16.1x23x1 Drain plug seal	1		
4*	F1402058	Magnet drain plug	1		
5	0201181	Ø260x2.5 O'ring	1		
6	0301188	M8x12 cl10.9 CHc bolt	2	648	1.5
7	F9046014	Deflector	1		
8	F90460131	Suction screen	1		
	0202080	a Ø11x1.5 O'ring viton	1		
9	0599002	16.1 x 23 x 1 Seal washer	1		
10	F90520231	Complete main housing (specific seat)	1		
	1202028	a PAP2010 P10 bushing	1	648	
	1202030	b PAP1610 P10 bushing	2	648	
	0106021	c** HK2016 bearing	1	648	
11	5099088	Filler plug	1		
12	5002017	Ø18 Filler O'ring	1		
13	F90520241	Complete cluster housing (specific seat)	1		
	0201131	a Ø8x2 O'ring	1		
	1202011	b PAP0808 P10 bushing	1	648	
	F0077229	c Ø12x15 pin	2	648	



Rep.	Réf.	Désignation	Qty	Glue	Torque Couple (DaN.m)
14	F90239081	Barrel gauge set thickness:0.5, 0.2, 0.1mm	1		
15**	0101128	61905 bearing	1		
16	0601003	Ø25 circlip	1		
17	F00892001	Temperature sensor	1	577	
18	0599059	BS Ø8 seal washer	1		
19*	0201039	Ø214x3 O'ring	1		
20	9999543	M12x150 /D06 fitting	1	577	
21	99991085	Banjo 776 06 M12D	1		
22	0599018	12.5 x 18 x 1 Copper washer	3		
23	9999313	Banjo 776 04 M12D	1		
24	99991084	Dash06_M12x150 Double screw banjo	1		
25	F9052050	Differential hose D04 (specific seat)	1		
26	9999584	10.2x14x1.5 Alu washer	2		
27	F9046018	M10x125 Alu plug	2		
28	99991042	M10x100 /D04 fitting	1	577	
29	0599017	10,2 x 15 x 1 Copper washer	1		
30	F9052021	Spacer Seat TCR (specific seat)	1		
31	0599043	12.5 x 20 x 1 Copper washer	1		

(*) and (**) parts included in the rebuilt kits (cf page 21)

6-Housings



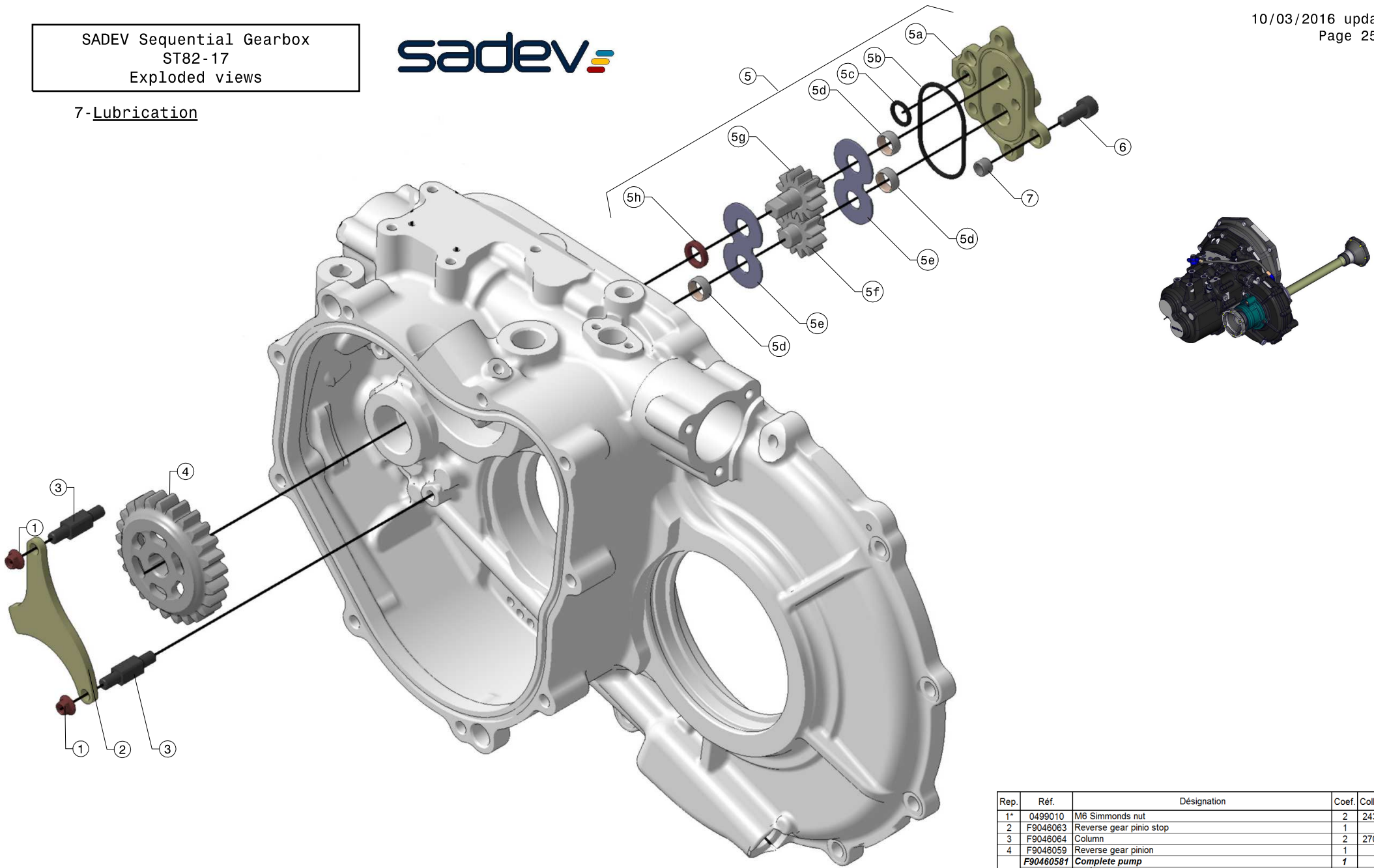
Rep.	Réf.	Désignation	Qty	Glue	TorqueC ouple (DaN.m)
1	0509010	AS5578 bearing washer	1		
2	0201297	Ø102x2 O'ring	1		
3	0301378	M8x16 cl12.9 ZN CHc bolt	3	222	2.5
4	F90520171	Left bearing housing (specific seat)	1		
5	0101073	6010 bearing	1		
6	9907092	SB80 Seeger circlip	2		
7	0206081	Ø 55 x 80 x 10 Viton double lips seal	1		
8	F90527551	Ø108 Left flange assembly (specific seat)	1		
	9907028	a SW50 Seeger circlip	1		
9	F9052325	Centering preload tool inner race	1		
10	0801042	Spring	1		
11	F9052323	External preload tool	1		
12*	0201101	Ø11x2 O'ring	1		
13	F9052324	Centering external preload tool race	1		
14*	0201122	Ø17x1.5 O'ring	1		
15	9907003	Ø20 SB circlip	1		

(* and (**) parts included in the rebuilt kits (cf page 21)

Rep.	Réf.	Désignation	Qty	Glue	TorqueC ouple (DaN.m)
16	F9012916	Right flange (Specific seat)	1		
17	F90527481	Relay shaft (Specific seat)	1		
	9907004	a SW30 Seeger circlip	1		
18*	0206013	Ø52x68x8 lip seal	2		
19	0301387	M8x20 cl10.9 ZN CHc bolt	6	248	2.5
20	F9052004	Diff housing	1		
21*	0201044	Ø106x2 O'ring	1		
22*	0202068	Ø41x3 O'ring	1		
23	F9052332	Centering right sun gear	1		
24**	0101135	61910 bearing	1		
25	9907028	Ø50 SW circlip	1		
26	0602026	Ø72 circlip	1		

(* and (**) parts included in the rebuilt kits (cf page 21)

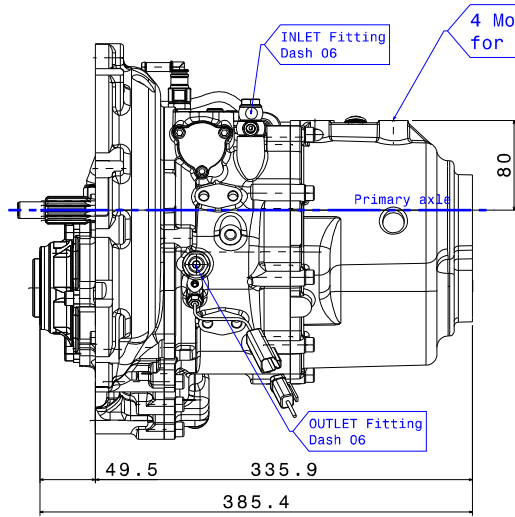
7-Lubrication



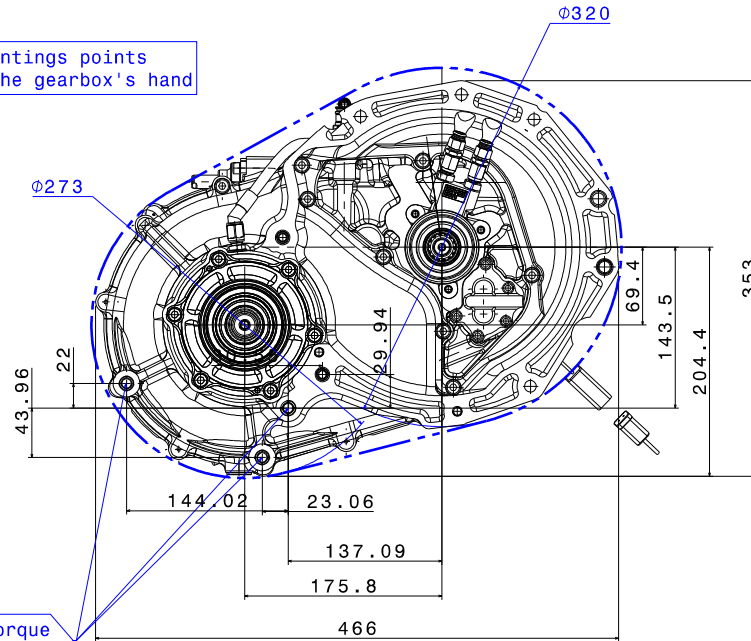
Rep.	Réf.	Désignation	Coef.	Colle	Couple (DaN.m)
1*	0499010	M6 Simmonds nut	2	243	1.5
2	F9046063	Reverse gear pinio stop	1		
3	F9046064	Column	2	270	
4	F9046059	Reverse gear pinion	1		
	F90460581	Complete pump	1		
	F90460582	a Pump end cap	1		
	0201282	b* Ø44x2 O'ring	1		
	0201135	c* Ø10x2 O'ring	1		
5	1202029	d PAP1005P11 bushing	3		
	F9046062	e Gauge pump	2		
	F9046061	f Pinion	1		
	F9046060	g Main pinion	1		
	0203055	h* G10x14x3 seal bushing	1		
6	0301422	M6x16 cl10.9 ZN CHc bolt	5	243	1.50
7	F1404429	Ø8x6.2x6 centering pin	2		

(*) and (**) parts included in the rebuilt kits (cf page 20)

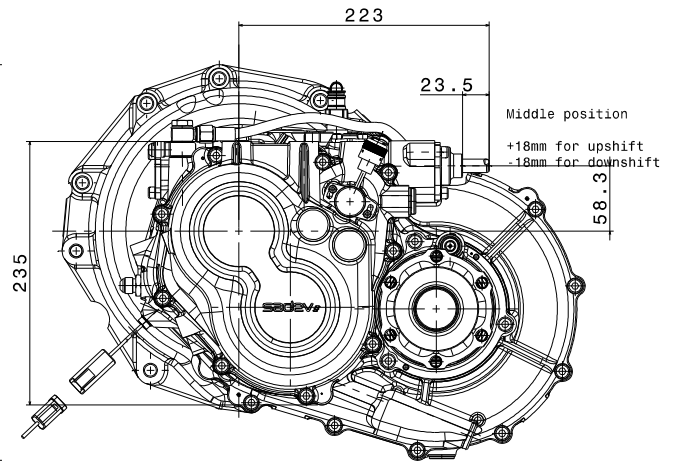
Right view



Engine side view

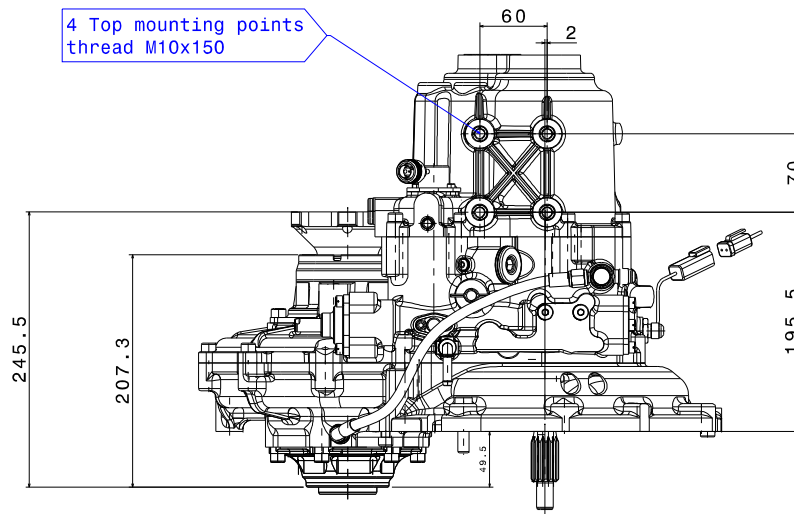


Rear view



3 mountings points for cancelling torque threads M10x150

Top view



DESCRIPTION:		15/03/2016	
MOUNTING DRAWINGS GEARBOX ST82-17 SEAT		SADDEV	
		003.003.06.00.45	
		Project: ST82-17	
		Drawn by:	
		Rev. 01	
		Rev. 02: 21.03.2016	
		Rev. 03: 09.04.2016	
		Rev. 04: 09.04.2016	
		Rev. 05: 09.04.2016	
		Rev. 06: 09.04.2016	
		Rev. 07: 09.04.2016	
		Rev. 08: 09.04.2016	
		Rev. 09: 09.04.2016	
		Rev. 10: 09.04.2016	
		Rev. 11: 09.04.2016	
		Rev. 12: 09.04.2016	
		Rev. 13: 09.04.2016	
		Rev. 14: 09.04.2016	
		Rev. 15: 09.04.2016	
		Rev. 16: 09.04.2016	
		Rev. 17: 09.04.2016	
		Rev. 18: 09.04.2016	
		Rev. 19: 09.04.2016	
		Rev. 20: 09.04.2016	
		Rev. 21: 09.04.2016	
		Rev. 22: 09.04.2016	
		Rev. 23: 09.04.2016	
		Rev. 24: 09.04.2016	
		Rev. 25: 09.04.2016	
		Rev. 26: 09.04.2016	
		Rev. 27: 09.04.2016	
		Rev. 28: 09.04.2016	
		Rev. 29: 09.04.2016	
		Rev. 30: 09.04.2016	
		Rev. 31: 09.04.2016	
		Rev. 32: 09.04.2016	
		Rev. 33: 09.04.2016	
		Rev. 34: 09.04.2016	
		Rev. 35: 09.04.2016	
		Rev. 36: 09.04.2016	
		Rev. 37: 09.04.2016	
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		Rev. 39: 09.04.2016	
		Rev. 40: 09.04.2016	
		Rev. 41: 09.04.2016	
		Rev. 42: 09.04.2016	
		Rev. 43: 09.04.2016	
		Rev. 44: 09.04.2016	
		Rev. 45: 09.04.2016	
		Rev. 46: 09.04.2016	
		Rev. 47: 09.04.2016	
		Rev. 48: 09.04.2016	
		Rev. 49: 09.04.2016	
		Rev. 50: 09.04.2016	

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