Engineering motordata (WIN 711)		
DC bus voltage	560	V DC
Nominal AC voltage	380	V AC (rms)
Rated voltage	277	V AC (rms)
Rated power	1.9	kW
Rated speed	3000	rpm
Rated torque	6.10	Nm
Rated current	5.14	A (rms)
Peak torque	22.5	Nm
Peak current	23.8	A (rms)
Stall torque	7.5	Nm
Stall current	5.2	A (rms)
No load speed	4350	rpm
EMF constant ±10%	87	V AC (rms) / 1000rpm
Theoretical torque constant ±10%	1.44	Nm / A (rms)
Torque constant ±10% @ rated load	1.19	Nm / A (rms)
Number of poles	10	
Electrical time constant	5.90	ms
Winding terminal resistance	2.29	Ω
Rotary field terminal inductance	13.5	mH

Customs info	
HS Code	85015220

Mechanical motor data (setting 5)		
Max mechanical speed	9000	rpm
Mech. time constant	0.62	ms
Thermal time constant	30	min
Rotor inertia	3.26	kgcm²
Protection	IP64	
Color	RAL 9005	
Cooling	Convection	
Motor-only mass	4.7	kg

Sensors	
Temperature	PTC 111-K13 {PTC 111-K13 Reissmann}
Feedback	2-pole resolver (ER5Kd411, TS2620N21E11, RE-15-1-A15)

Brake		
Braking torque	4.50	Nm
Voltage	24	V DC
Power @20°C	12.0	W
Current @20°C	0.50	A
Inertia	0.20	kgcm²
Mass	0.47	kg

Gearbox engineering data		
Gear ratio	35	
Efficiency*	90	%
Torsional stiffness	14.6	Nm/arcmin
Number of stages	2	
Rated output torque	205	Nm
Cycling output torque	255	Nm
Max output torque	405	Nm
Emergency output torque	650	Nm
Rated input speed	1900	rpm
Max input speed	14000	rpm
Operating temperature	<-25; 90>	°C
Max. backlash	< 5	arcmin
Service life	20000	h

** at rated speed & torque*

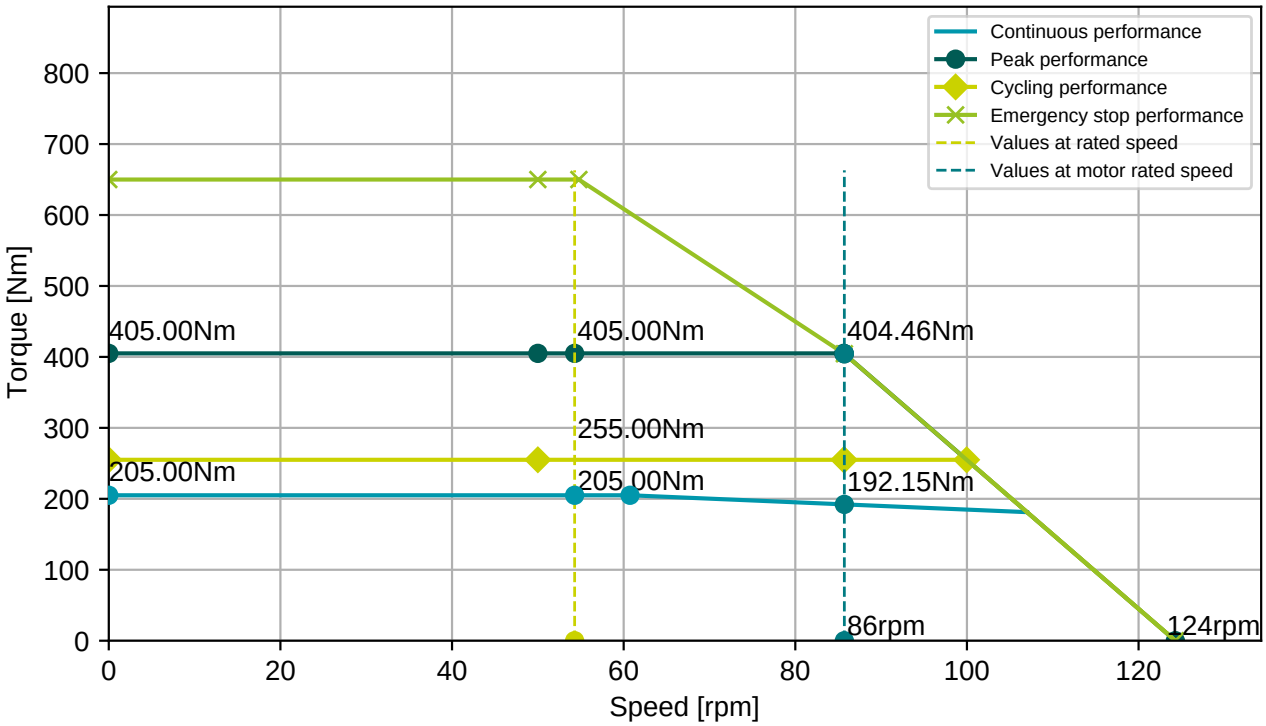
Lubrication	
Type	Standard
Lubricant	Grease (lifetime lubrication)

Gearbox mechanical data		
Radial force for 20'000h*	6000	N
Axial force for 20'000h	6500	N
Output shaft design	Shaft key	
Mass	10.6	kg
Input inertia	1.093	kgcm²
Protection	IP65	

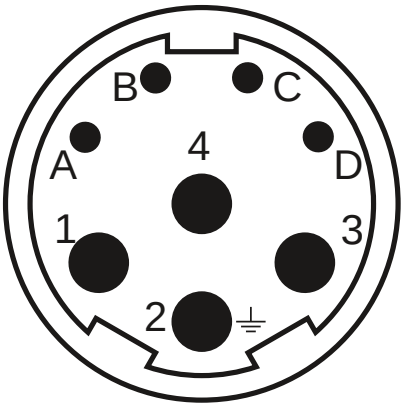
** Defined for point of action at ½ output shaft length*

Actuator data		
Rated speed	54	rpm
Rated torque	205.00	Nm
Cycling torque	255.00	Nm
Peak torque	405.00	Nm
Emergency stop torque	650.00	Nm
EMF constant ±10%	3045.0	V AC (rms) / 1000rpm
Torque constant ±10% @ rated load	37.38	Nm / A (rms)
Total mass	15.77	kg
Output inertia	5332.4	kgcm²

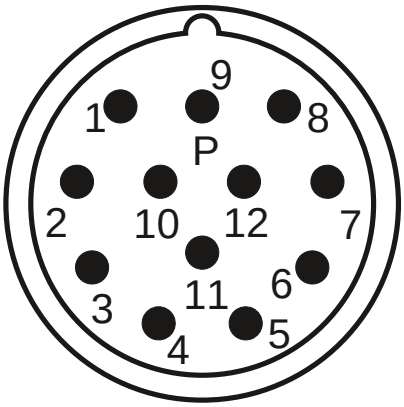
Torque / speed curve



BGC110N00001216000
M23, 8 poles, rotary

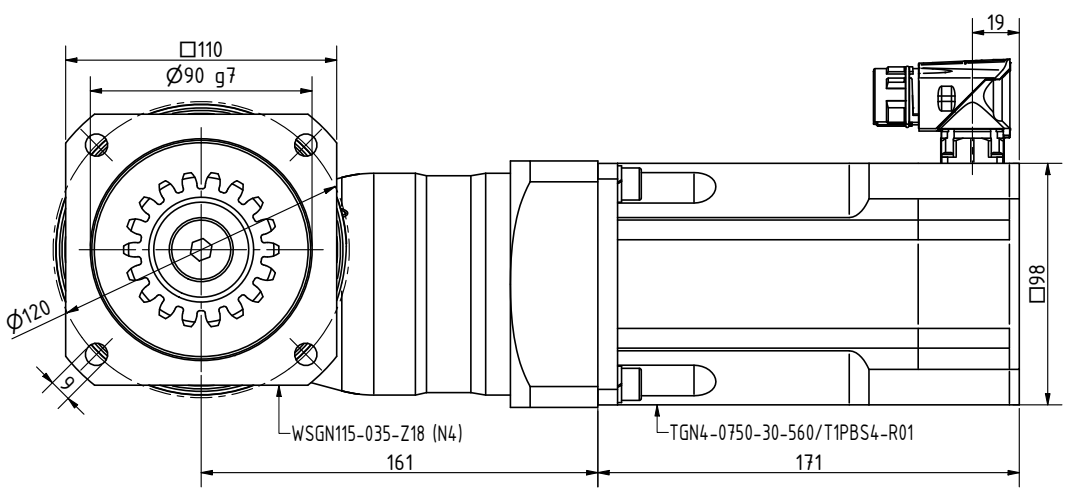


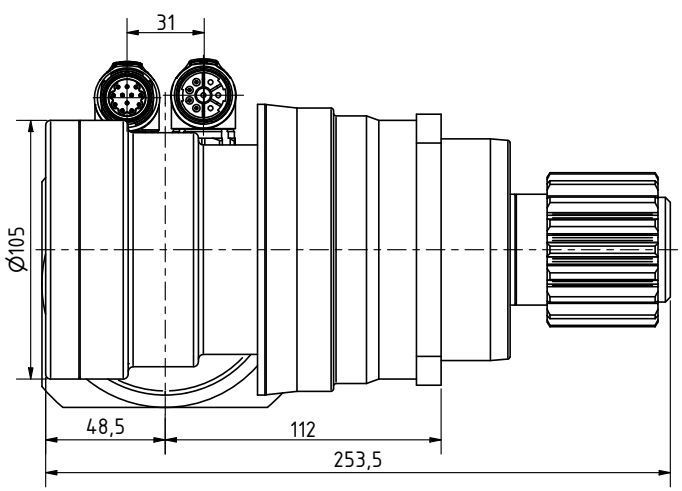
AGC052N00001215000
M23, 12 poles, rotary

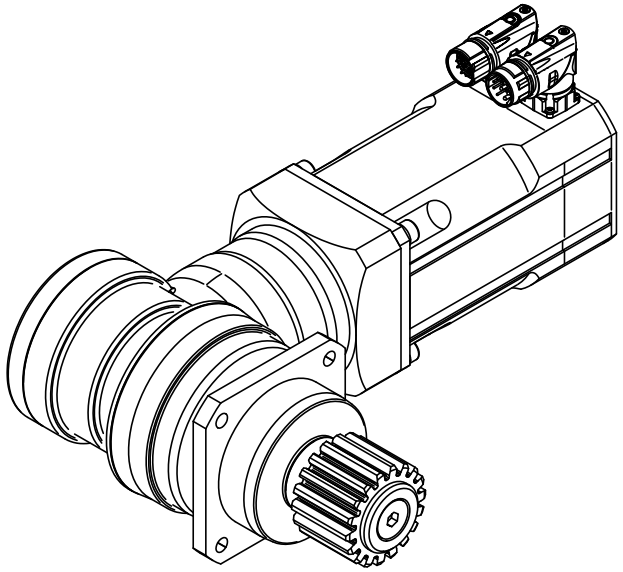


Connector 1 (9)	
1	U
4	V
3	W
2	PE
A	Brake+
B	Brake-
C	
D	

Connector 2 (10)	
2	Therm+
3	S4
4	S3
5	R2
6	Therm-
7	S2
8	S1
9	R1



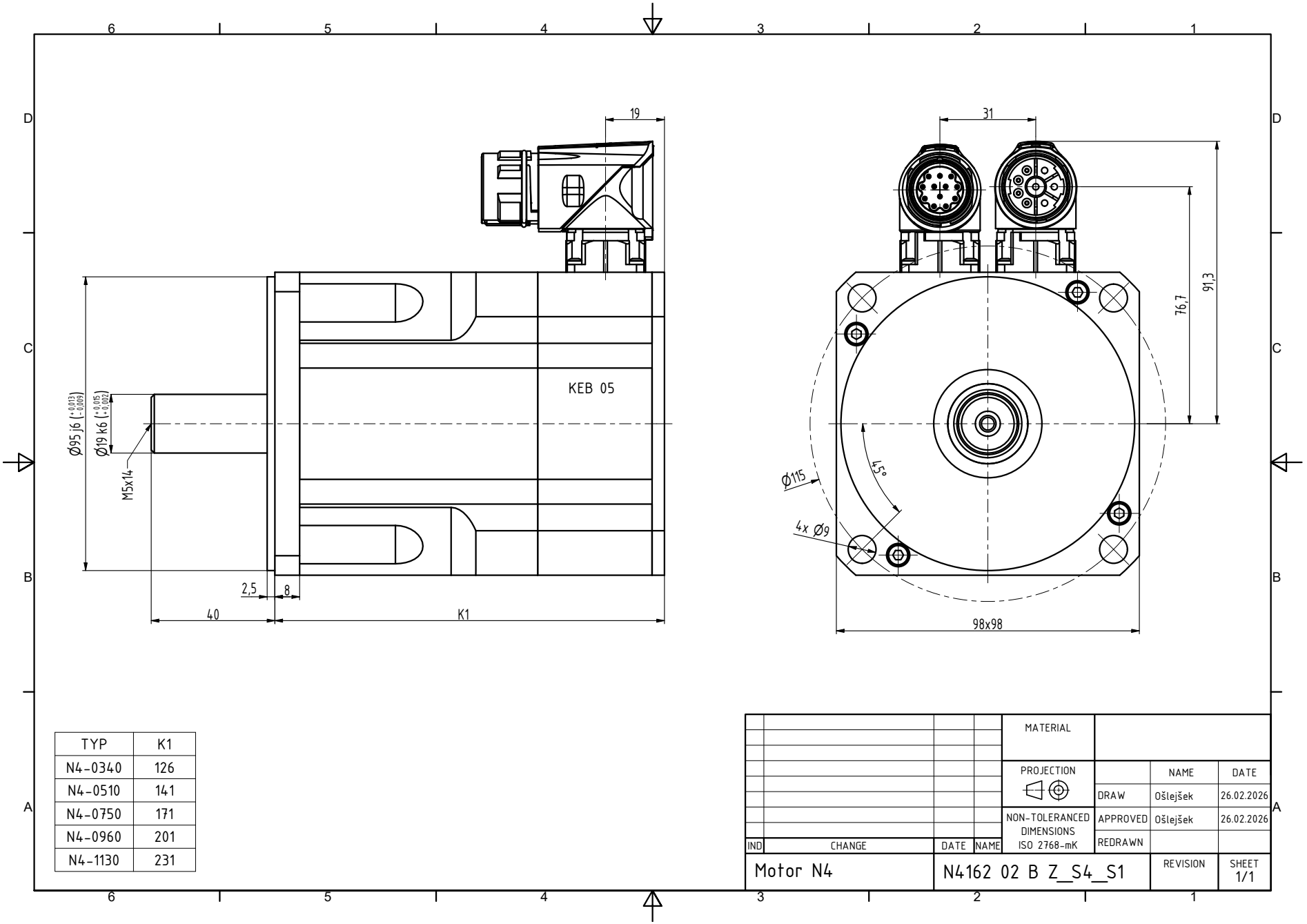




Bill of material			
Part Name	Quantity	Type	Tools
Screw - DIN 912/A4-70/M8x25	4	A4-70	imbus-M8
Washer - DIN 128A/A4 M8	4	A4	

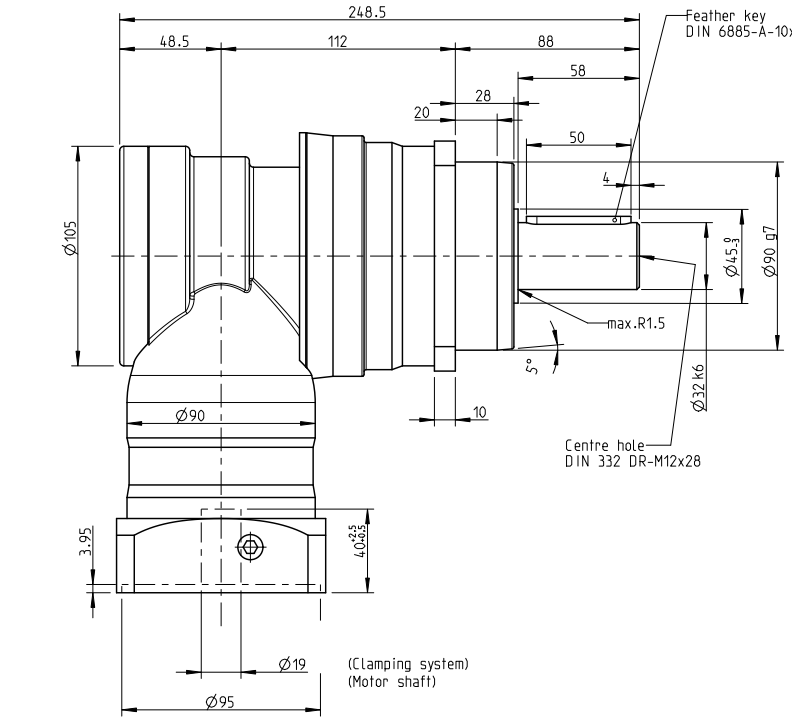
Untolerated dimensions: ISO 2768 - m

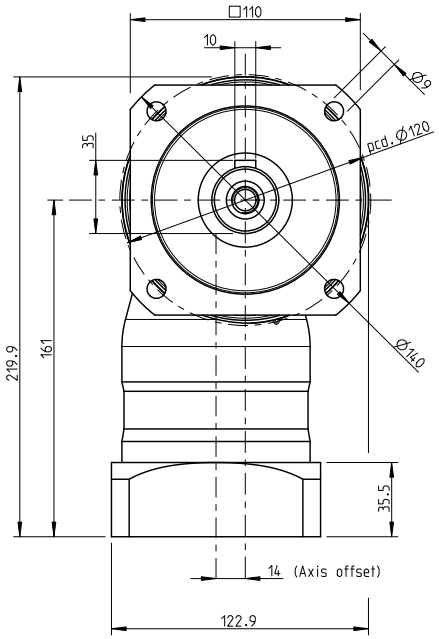
Drawen:	Štěpán Bednář	Created: 17.02.2026	Modified: 24.02.2026
Checked/approved by:		PROJECT NAME: **Gearbox WSGN115-035-Z18 (N4)**	
Material			
Semiprod.		NUMBER - TITLE: WSGN115-035-Z18 (N4)	
Project ID's			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MM ANGLES ±XXX° or ±XXXX, 2 PL ±XXX, 3PL ±XXXX		SIZE A3 / QUANTITY:	REVISION:
Designer: Bednar Mail: bednar@tgdrives.cz Tel: +420 724844770	Olomoucka 1290/79 627 00 Brno Czech republic	AUTODESK	SCALE: 0.55 / WEIGHT: / SHEET: 1/1

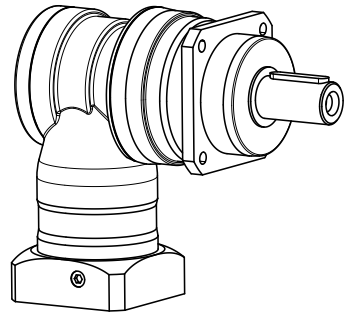


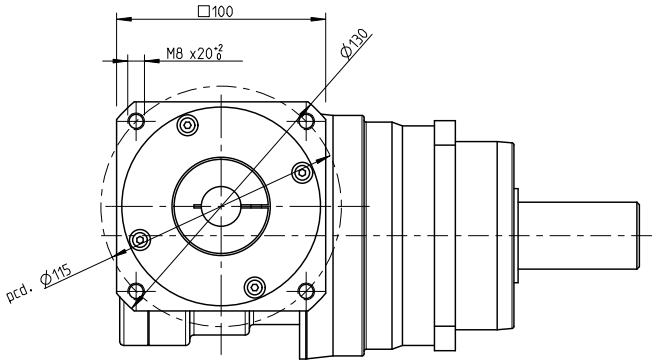
TYP	K1
N4-0340	126
N4-0510	141
N4-0750	171
N4-0960	201
N4-1130	231

				MATERIAL			
				PROJECTION		NAME	DATE
					DRAW	Ošlejšek	26.02.2026
				NON-TOLERANCED DIMENSIONS ISO 2768-mK	APPROVED	Ošlejšek	26.02.2026
					REDRAWN		
IND	CHANGE	DATE	NAME				
Motor N4		N4162 02 B Z_S4_S1			REVISION	SHEET 1/1	









INDEX	ZMĚNA	DATUM	PODPIS		
ZM.MAT.		T.O.	HMOTNOST kg	MĚŘ.	
ROZM.-POLOT.					
ROZM. ZAŘ.			ČSN	TŘ.Č.	
VYPR.	NORM. REF.		POZN.	Č. KUSOVNÍKU	
PŘEKR.					
TECHNOL.	SCHVÁLIL.	12.9.2020	STARÝ V.	Č.V.	

NÁZEV

Gearbox WSGN115

TGN4, TGH4, TGT4

Listů List