



SYSTEM'S TECHNICAL SPECIFICATION

	Motor	First shaft	Second shaft	Winch
Power (kW)	3.38	3.18	3.06	2.94
Speed (rpm)	965	323.55	40.44	40.44
Speed ratio	2.98	8	1	
Torque (Nm)	33.45	93.86	722.63	694.29

TECHNICAL REQUIREMENTS:

- The body and the lid of the box need to be applied a layer of glue-glass before assembling.
- After assembling the gearbox reducer, ensure 2 hours of breaking in before use.
- The inside of the gearbox should be painted antirust orange-red.

29	C1-014	Oil barrier - Shaft I	2	Steel	Workshop
28	C1-013	Oil seal - Shaft I	1	Rubber	Workshop
27	C1-012	Feather key 8x7x36	1	Steel	Workshop
26	207	Thrust ball bearing 207	2	Steel	SKF
25	C1-011	Steel plate - Shaft I	20	Steel	Workshop
24	C1-010	Steel plate - Shaft II	20	Steel	Workshop
23	C1-009	Oil barrier 1 - Shaft II	1	Rubber	Workshop
22	113-A	Deep groove ball bearing 113	2	Steel	123Bearing
21	C1-008	Bearing cover - Shaft II	2	GX15-32	Workshop
20	RSCB10	Hex bolts M10x1.5	12	Steel	Misumi
19	C1-007	Driven helical gear	1	Steel	Workshop
18	C1-006	Gearbox body	1	GX15-32	Workshop
17	10323A	Oil dip stick	1	Aluminium	Nicecnc
16	C1-005	Dowel pin	2	Steel	Workshop
15	RSCB06	Hex bolts M6x1	4	Steel	Misumi
14	C1-004	Air vent	1	Ceramic	Workshop
13	C1-003	Access door 150x100	1	GX15-32	Workshop
12	C1-002	Steel plate 150x100	10	Steel	Workshop
11	A17101200UX	Eye bolt M12x1.75	2	Carbon steel	Uxcell
10	9214BA221	Spring washers M14	4	Steel	MCMaster-Carr
9	90592A032	Hex nuts M14x2	4	Steel	MCMaster-Carr
8	91280A802	Hex bolts M14x2	4	Steel	MCMaster-Carr
7	RSCB12	Cap seperator M12 bolt	1	Steel	Misumi
6	C1-001	Gearbox cover	1	GX15-32	Workshop
5	SLW12	Spring washers M12	8	Steel	Misumi
4	SLBNR12	Hex nuts M12x1.75	8	Steel	Misumi
3	RSCB12	Hex bolts M12x1.75	8	Steel	Misumi
2	65325	Oil drain plug seal	1	Steel	Dorman
1	65325	Oil drain plug M16x1.5	1	CT3	Dorman

No.	Symbol	Name	Q.ty	Material	Notation
DESIGN OF A TRANSMISSION SYSTEM FOR THE TOWING WINCH					
TRANSMISSION PROJECT					
Func.	Full name	Sign.	Date	Q.ty	Weight
Design	D.L.Minh			1	1.15
Instruct.	T.T.Pluc			Sheet: 1	Total sheet: 4
Approve				HCMC University of Technology Mechanical Engineering Faculty	

38	C1-022	Oil barrier 2 - Shaft 2	1	Rubber	Workshop
37	C1-021	Feather key 18x11x63	1	Steel	Workshop
36	C1-020	Shaft 2	1	Steel	Workshop
35	C1-019	Feather key 18x11x80	1	Steel	Workshop
34	C1-018	Oil seal - Shaft II	1	Rubber	Workshop
33	RSCB08	Hex bolts M8x1.25	8	Steel	Misumi
32	C1-017	Bearing cover - Shaft I	2	GX15-32	Workshop
31	C1-016	Shaft 1	1	Steel	Workshop
30	C1-015	Driving helical gear	1	Steel	Workshop

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