

**Yuandong**

奉化市远东车辆部件有限公司

Fenghua Yuandong Auto Parts Limited Company

**Hawks**

奉化市哈克斯自动化设备有限公司

Fenghua Hawks Automatic Equipment Limited Company

# Gearbox LYAB Seriesr

## Description:

LYAB series gear boxes are made of cast iron. Adopted to full sealing design and axial bearing structure, so these products can be widely used in chemical, power, waterworks and most of general industries.

## Application:

Suitable to connect butterfly valves, ball valves and plug valves.

## Feature:

Output torque can reach to 32000N/M (283224lbf.in.).

Simple construction and easy to maintain.

Worm gear can lock by itself and enjoy high transmission efficiency.

Axial needle bearings design, so high mechanical efficiency granted.

Max output torque: 1.3 times rated output torque.

There are different sizes of wheel hand for customers' selection, also the surface of gear boxes can be coated at customers' demands.

## Options:

1.Locking Mechanism.

2.Limit Switches.

## Applicable Environment:

1.Apply to general environment, protection level can reach to IP67.

2.Apply to prolonged underwater environment, protection level can reach to IP68.

3.Apply to poor working conditions, protection level can reach to IP68.

## Applicable Temperature:

-20° ~120°

## Notice:

1. Customers can select the right model from the parameters of gear boxes, also can send parameters and demands to us to look for help.

2.Other types can be designed and developed at customers' demands.

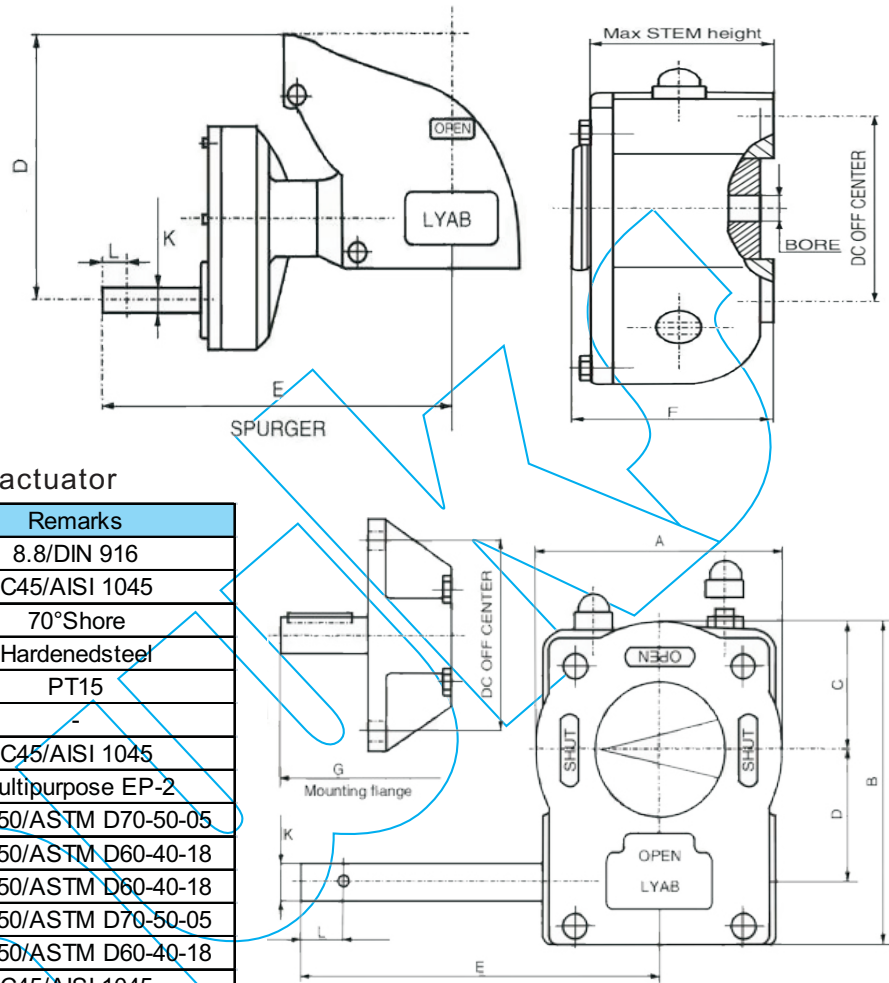
Dimension table of LYAB series manual actuator

Model	Maximum Dimensions(Insrts)						
	ØM	ØN	o	P	ØQ	R	S
LYAB40	25	15	19.6	5	18.1	14	14
LYAB37	32.15	20	25.2	6	22.2	17	17
LYAB37	32.15	20	25.2	6	22.2	17	17
LYAB34	45.3	30	36.6	8	36.2	27	27
LYAB38	60	44	50.6	12	48.2	36	36
LYAB55	60	44	50.6	12	48.2	36	36
LYAB52	75	55	64	16	55	46	46
LYAB84	75	55	64	16	55	46	46
LYAB208	75	55	64	16	55	46	46

Technical specification of LYAB series manual actuator

Model	Ratio	Nm(lbf.inch)		M.A.±10%	Max. stem Height(mm)	Wheel hand Ø	Weight (KG)
		Output	Input				
LYAB40	40	150(1328)	16(138)	9.6	38	100	2.2
LYAB37	37	500(4425)	43(381)	11.6	45	200	3.5
LYAB37	34	1000(14602)	83(738)	12	79	400	8.5
LYAB34	45	1650(14602)	105(930)	16	79	450	14
LYAB38	38	2000(17707)	152(13411)	13.2	82	600	14
LYAB55	55	3250(28765)	171(1514)	19	91	650	22
LYAB52	52	5500(48679)	289(2562)	19	111	850	32
LYAB84	84	4500(39828)	159(1407)	28.3	111	600	32
LYAB208	208	6800(60185)	125(1106)	54.4	111	500	45
LYAB78	78	8400(74346)	305(2704)	27.5	121	900	56
LYAB312	312	9000(79657)	96(851)	93.6	121	450	70
LYAB312	312	12500(110634)	134(1182)	93.6	121	500	70
LYAB364	364	8800(77884)	186(1646)	47.3	111	600	53
LYAB546	546	15000(132758)	175(1549)	85.7	121	500	78
LYAB702	702	17000(150463)	92(813)	185	121	450	100
LYAB780	780	17500(154875)	70(620)	250	135	400	100
LYAB705	705	26000(230119)	116(1023)	225	169	500	225
LYAB705	705	32000(283224)	142(1259)	225	169	700	225

# Gearbox LYAB Seriesr



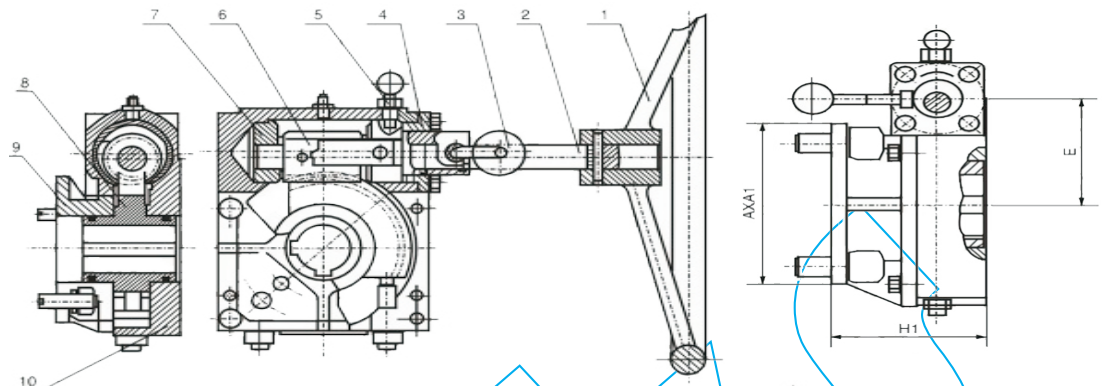
Main parts list of LYAB series manual actuator

Item	Description	Material	Remarks
1	Set-screw	45	8.8/DIN 916
2	Worm	45	C45/AISI 1045
3	Paper pad	NBR	70°Shore
4	Needle-Bearing	AXK-AS	Hardenedsteel
5	Bushing		PT15
6	Oil-seal		
7	Shaft	45	C45/AISI 1045
8	Grease		Multipurpose EP-2
9	Position indicator	QT500-7	GGG50/ASTM D70-50-05
10	Coverplate	QT400-18	GGG50/ASTM D60-40-18
11	Worm Gear	QT400-18	GGG50/ASTM D60-40-18
11A	Worm Gear	QT500-7	GGG50/ASTM D70-50-05
12	Hody	QT400-18	GGG50/ASTM D60-40-18
13	Gear	45	C45/AISI 1045

Dimension table of LYAB series gear operator

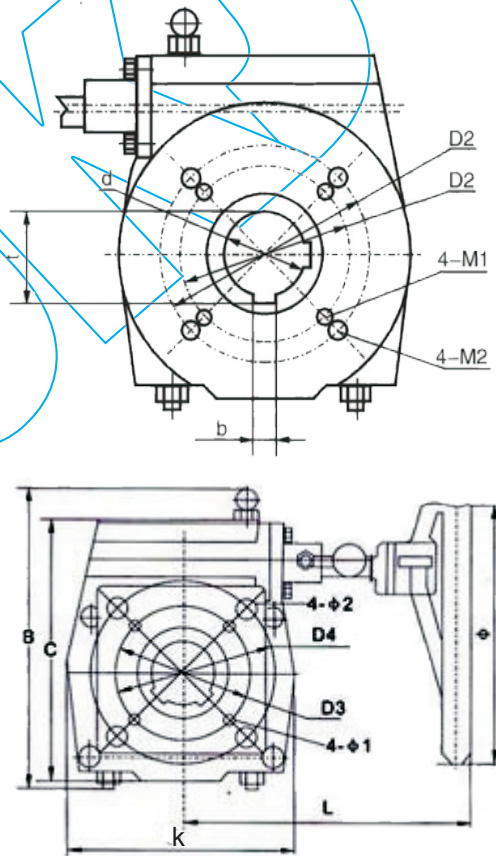
Model	A	B	C	D	E	F	G	ØK	L	BC.acc.ISO5211	DC.acc.ISO5211	Bore Max
LYAB40	80	124	58	42.5	99.5	53.5	-	12	14	F04-F05-F07	F04-F05	20
LYAB37	102	127.5	48	52	159	65	146	15	14	F05-F07-F410	F04-F05-F07	30
LYAB34	138	174	69	71	201	88	170	20	24	F07-F10-F12-F14	F05-F07-F10-F12	45
LYAB45	172	210	86	86	190	79	182	20	24	F10-F12-F14	F07-F10-F12	45
LYAB38	200	226	100	86	189	92.5	182	20	24	F10-F12-F14-F16	F07-F10-F12-F14	60
LYAB55	220	258	110	104.5	230	102	200	20	24	F10-F12-F14-F16	F07-F10-F12-F14	65
LYAB52	285	322.5	142.5	130	275	123.5	204	25	28	F12-F14-F16-F25	F07-F10-F12-F14	80
LYAB84	285	322.5	142.5	130	275	123.5	204	25	28	F12-F14-F16-F25	F07-F10-F12-F14	80
LYAB208	285	322.5	142.5	211	335	155	334	25	28	F12-F14-F16-F25	F07-F10-F12-F14	80
LYAB78	402	170	182	300	160	257	25	28	28	F16-F25-F30	F14-F16-F25	100
LYAB312	482	170	263	388	160	388	25	28	28	F16-F25-F30	F14-F16-F25	100
LYAB364	323	142.5	148.6	348	155	334	25	28	28	F12-F14-F16-F25	F07-F10-F12-F14	80
LYAB546	482	170	148.6	401	160	388	25	28	28	F16-F25-F30	F14-F16-F25	100
LYAB702	584	170	357	466	180	469	30	20	20	F16-F25-F30	F14-F16-F25	100
LYAB705	725	235	431	499	180	500	30	20	20	F16-F25-F30	F16-F25-F30-F35	150
LYAB780	512	170	258.5	520	196	520	25	28	28	F16-F25-F30	F14-F16-F25	100

# LHJ series clutch aluminum shell gear operator



Main parts list of LHJ series clutch gear operator

Item	Description	Qty	Standard Material	Optional Material
1	Hand Wheel	1	HT200 GB9439-88	WCB GB12229-88
2	Worm shaft	1	HT200 GB9439-88	
3	Handle	1		
4	Small cap	1	HT200 GB9439-88	QT500-7GB1348-88
5	Positioning pin	1		
6	Worm	1	45 GB699-88	
7	Off centre sleeve subassembly	1		
8	Worm Gear	1	QT500-7GB1348-88	
9	Bracket Cap	1	HT200 GB9439-88	QT500-7GB1348-88
10	Housing	1	HT200 GB9439-88	QT500-7GB1348-88

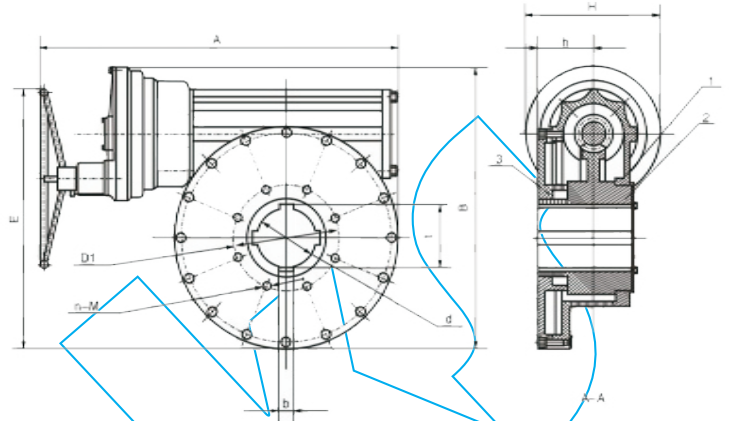
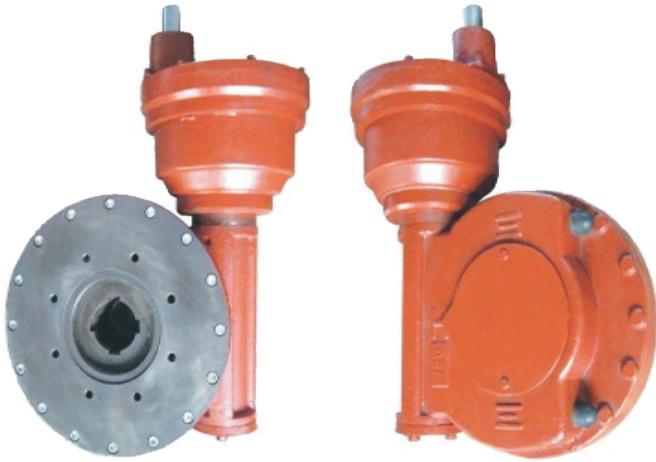


Dimension table of LHJ series clutch gear operator

Model	Worm Gear	Specifications of worm gear				Housing	Dimens of salve				bracket	Dimens of bracket(cylinder)				Fastener	H1	Hand wheel Φ	Cylinder H×H	Bellofrom	L	B	C	K	E	output torque NM	Weight (kg)
		d	b	t	d2		D	D1	4-M1	D2		4-M2	ANA	D3	4-φ1												
LHJ26		18	6	20.8	36	90	70	4-M8		I	64N64	70	4-9		GB73-85/M8   30	71	200	14×14	GTX63	192	166	130	104	50.5	300	6.7	
		222	8	25.5	36		70	4-M8		II	64N64	70	4-9		GB73-85/M8   30	71	200	17×17	GTX75~83~92								
		F2	17×17		30		F2	64N64	50	4-7	70*	4-9	GB73-85/M6   25, M8   30	78	200	17×17	GTX75~83~92										
		IV	222	8	25.5		45	IV	100×70	70	4-9	102*	4-12	GB73-85/M8   30, M10   35	79	200	22×22	GTX83~92									
LHJ38	I	32	10	35.3	45	I	110×110	70	4-9	102*	4-12	GB73-85/M10   30, M12   40	86	250	27×27	GTX160	195 225 225	191	156	125	65.5	500 600 700	13				
	II	38	10	41.3	60	II	110×110			125	4-14	GB73-85/M12   40	82	250	27×27	GTX160											
	III	45	14	48.8	60	III	130×130			140	4-18	GB73-85/M16   45	88	300	36×36	GTX210											
LHJ54	I	36	10	39.3	70	I	100×100	70	4-9	102*	4-12	GB73-85/M10   30, M12   40	86	250	27×27	GTX160	233	234	199	175	85.5	1200	17				
	II	48	14	51.8	70	II	130×130			140	4-18	GB77-85/M16   55	95	300	36×36	GTX210											
	III	60	18	64.4	85	III	156×156			165	4-22	GB77-85/M20   60	103	300	46×46	GTX254~255											
LHJ80	I	48	14	51.8	85	I	156×135	140	4-18			GB77-85/M16   55	117	300	36×36	GTX210	271	311	279	234	123	1600 2000	22				
	II	60	18	64.4	85	II	156×156	165	4-22			GB77-85/M20   60	117	400	46×46	GTX254~255											
LHJ78	I	48	14	51.8	70	I	162×138	140	4-18			GB77-85/M16   55	122	600	46×46	GTX254~255	323	350	322	276	141.6	3100	38				
	II	60	18	64.4	85	II	162×162	165	4-22			GB77-85/M20   60															
	III	76.2	19.05	85.7	110	III	162×162	165	4-22			GB77-85/M20   60															
LHJ320		55	16	59.3	120		254	8-M16		Φ300	254	8-18		244	500				463	435	385	300	152	6000	100		
LHJ410		110.8	28	117.2			350	8-M20	356	8-M30		298	8-22		278	700				558	592	544	470	225	15000		

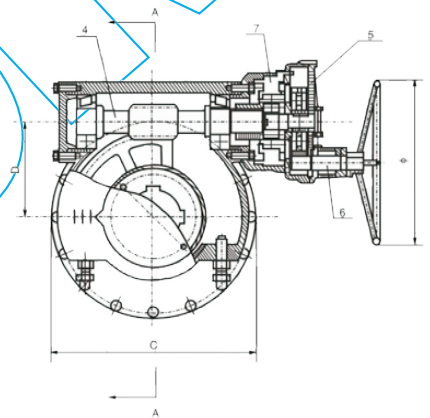


# LYIW series gear operator



## Main parts list of LYIW series gear operator

Item	Description	Qty	Material	Optional Material
1	Housing	1	D400-18	WCB GB12229-88
2	Worm gear	1	QT500-7GB1345-88	
3	Cover	1	HT200 GB9439-88	WCB GB12229-88
4	Worm Gear	1	40CrNi GB3077-88	45 GB699-88
5	Big Gear	1	ZC310-570	
6	Gear Shaft	1	45 GB699-88	
7	Ring	1	45 GB699-88	



## Dimension table of LYIW series gear operator

Model	b	d	t	n-m	D	D1	A	E	C	Ø	h	Weight(Kg)
LYIW280	48	14	51.8	4-M16	105	140	450	374	222	150	145	35
LYIW480												
LYIW540	153	40	162.4	8-M16	245	254	860	708	520	610	100	222
LYIW720												
LYIW960	178	45	188.4	8-M20	284	298	1000	784	598	610	145	290
LYIW1080	178	45	188.4	8-M20	284	298	1000	784	598	610	145	290
LYIW1440	203	50	214.6	8-M30	355	356	1208	882	750	610	189	408
LYIW2190	203	50	214.6	8-M30	355	356	1208	882	750	610	189	408
LYIW2530												
LYIW3000	203	50	214.6	8-M36	380	406	1203	1002	790	610	145	570
LYIW4200	175	63	217.4	8-M36	438	483	1257	1042	864	610	189	1220

## Technical specification of LYIW series worm gear operator

Model	Ratio	Travel Max	Limit Adjust	Rating Input	Rating Output	Valve Size Range
LYIW280	208:1	90°	±5°C	36	2950	DN400-DN500
LYIW480	480:1	90°	±5°C	120	23000	DN1000
LYIW540	540:1	90°	±5°C	200	26000	DN1050
LYIW720	720:1	90°	±5°C	200	34000	DN1300
LYIW960	960:1	90°	±5°C	240	46000	DN1500
LYIW1080	1080:1	90°	±5°C	240	51000	DN1650-DN1800
LYIW1440	1440:1	90°	±5°C	240	69000	DN1900-DN2200
LYIW2190	2190:1	90°	±5°C	240	105000	DN2400
LYIW2530	2530:1	90°	±5°C	240	145000	DN2500
LYIW3000	3000:1	90°	±5°C	240	175000	DN2750
LYIW4200	4200:1	90°	±5°C	240	185000	DN3000

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