



Parts Manual

Model 50D Turn-A-Load

Serial Number 50D-TAL-208

cascade[®]
corporation

For Technical Assistance call: 800-227-2233, Fax: 888-329-8207

To Order Parts call: 888-227-2233, Fax: 888-329-0234

OR

Write: Cascade Corporation, P.O. Box 20187, Portland, OR 97220

Internet: www.cascorp.com

Safety Decals



REF	QTY	PART NO.	DESCRIPTION
1	2	665595	No Hand Hold Decal
2	2	679150	No Step Decal

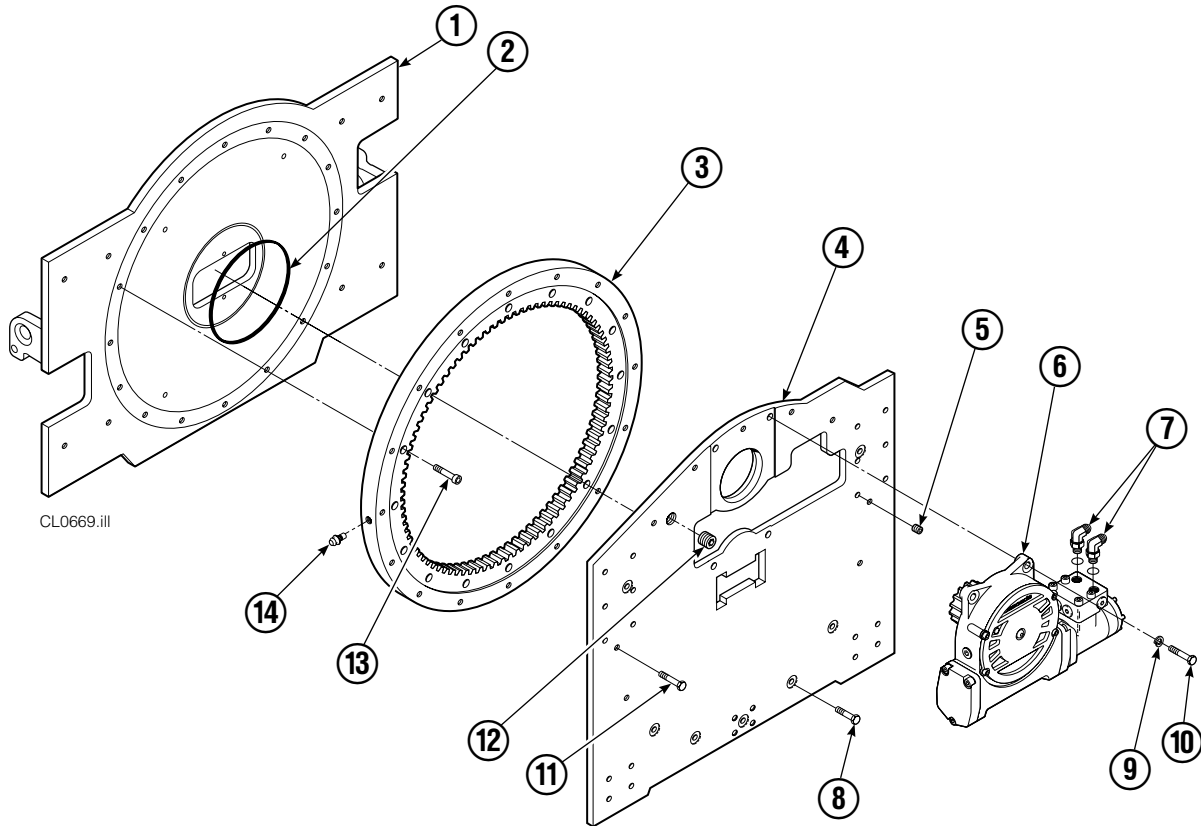


Publications



PART NO.	DESCRIPTION
672362	Service Manual
672903	Operators Guide
672361	Installation Instructions
680664	Servicing Cascade Cylinders-VHS
679929	Tool Catalog
673964	Literature Index Order Form

Rotator Group



CL0669.iii

50D			
REF	QTY	PART NO.	DESCRIPTION
		687238	Rotator Group
1	1	687230	Faceplate
2	1	670931	Seal
3	1	672828	Bearing Assembly
4	1	687229	Baseplate
5	6	631385	Plug
6	1	795491	Drive Group ▲
7	2	611303	Fitting
8	7	643538	Capscrew, 1/2 NC x 1.50 GR8
9	4	6290	Lockwasher, 1/2 in. ID
10	4	661742	Capscrew, 1/2 NC x 1.25 GR5
11	9	643539	Capscrew, 1/2 NC x 1.75 GR8
12	1	6605	Plug
13	16	4505	Capscrew
14	1	7401	Grease Fitting
		672481	Bearing Service Kit

▲ See Drive Group page for parts breakdown.

Reference: Common Parts Group 680700, SK-5346, SK-5649.

Drive Group



REF	QTY	PART NO.	DESCRIPTION	REF	QTY	PART NO.	DESCRIPTION
		795491	Drive Group with 2.8 c.i. Motor	19	1	206392	Drive Motor – 2.8 c.i. ▼
1	6	769570	Capscrew, M12 x 25	20	4	4468	Capscrew, 3/8 NC x .75 GR8
2	1	676855	Cover	21	1	670580	Bearing
3	●	674513	Shim – .005" (blue)	22	1	675609	Worm Gear
4	●	670574	Shim – .010" (brown)	23	1	670581	Bearing
5	●	671757	Shim – .015" (pink)	24	1	7214	Snap Ring
6	●	671758	Shim – .020" (yellow)	25	1	643423	O-Ring
7	2	670579	Bearing	26	1	775552	Cover
8	1	670582	Key	27	1	783609	Seal
9	1	670506	Pinion	28	1	783608	Capscrew, M12 x 16
10	1	775551	Housing	29	4	200882	Capscrew, M8 x 20
11	1	686465	Gasket	30	1	644010	Relief Fitting
12	1	675608	Worm	31	1	604510	Fitting, 6
13	1	775553	Adapter	32	1	656300	Gear Box Lube – 48 oz.
14	2	2705	O-Ring	33	1	668184	Sealant
15	1	670549	Check Valve ▲			670578	Shim Service Kit (items 3-6,25,33)
16	4	6444	Lockwasher			675637	Bearing Service Kit (items 21 & 33)
17	4	607059	Capscrew, 5/16 NC x 1.75 GR8			675638	Bearing Service Kit (items 3-7,25)
18	1	670575	Gasket			685227	Motor Kit-4.5 (items 4,14,18)

- Quantity as required.
- ▲ See Check Valve page for parts breakdown.
- ▼ See Drive Motor page for parts breakdown.

Drive Motor



REF	QTY	PART NO.	DESCRIPTION
		206392	Drive Motor
1	1	675478	Shaft
2	1	675477	Drive
3	1	675479	Spacer Plate
■ 4	1	675480	Gerotor Set (101-1768-007)
■ 4	1	685075	Gerotor Set (101-1768-009)
5	1	675482	End Cap
● 6	1	206405	Service Kit
■ 7	1	685089	Flange (101-1768-007)
■ 7	1	685090	Flange (101-1768-009)

Cascade provides service replacement parts for the listed parts only. Due to cost, if others parts need replacement, the complete drive motor should be replaced.

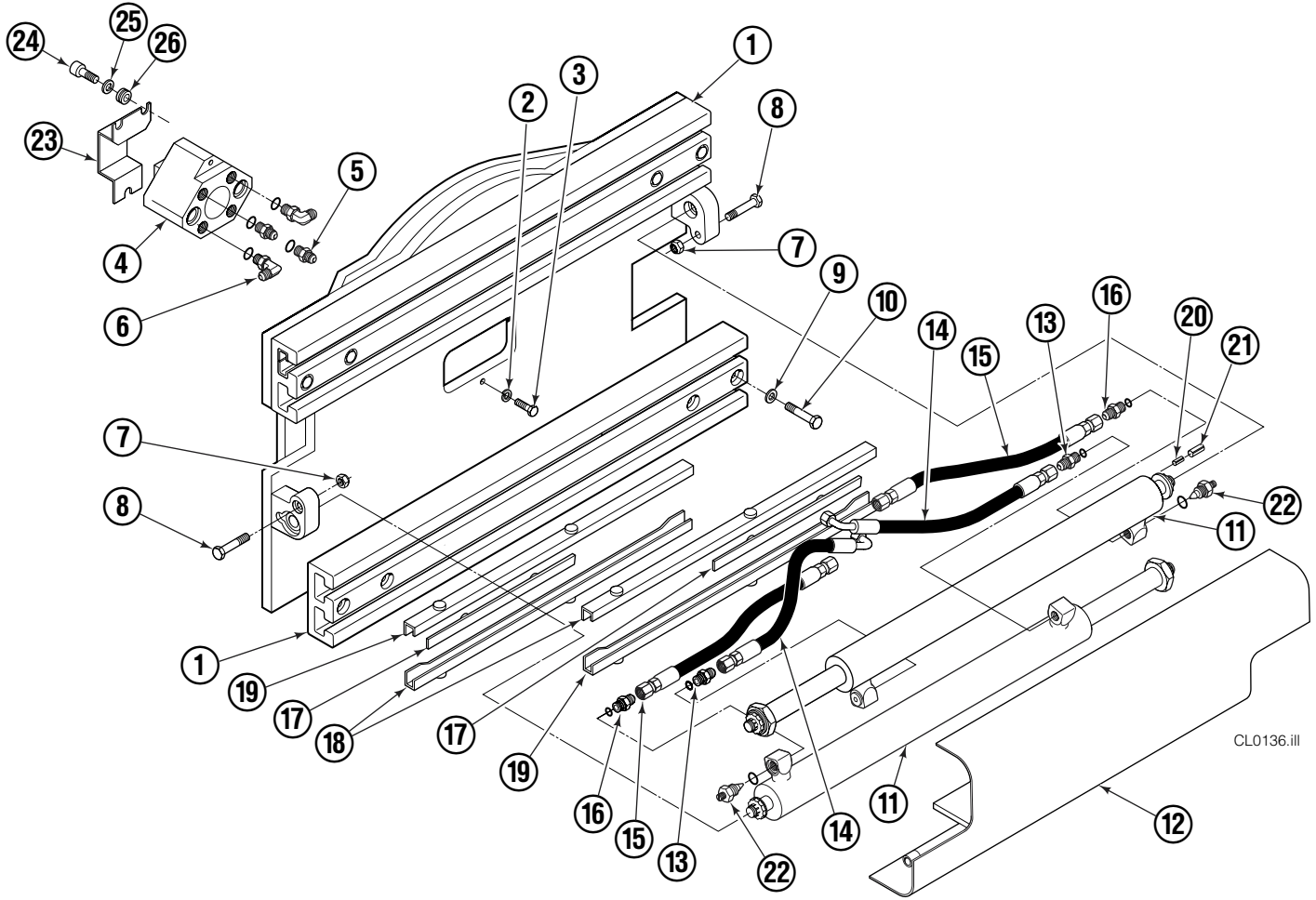
- See Nameplate under valve for correct part number of Gerotor Set and Flange.
- Compatible with water glycol based hydraulic fluids.

Check Valve



REF	QTY	PART NO.	DESCRIPTION
		670549	Check Valve Assembly
1	2	609453	Fitting, 10
2	2	670552	Spring
3	2	670551	Guide
4	2	7020	Ball
5	2	602580	Fitting, 8
6	2	673989	Spring
7	1	670550	Body
8	1	670553	Spool

Frame Group



50D							
REF	QTY	PART NO.	DESCRIPTION	REF	QTY	PART NO.	DESCRIPTION
		367495	Frame Group	14	2	631443	Hose
1	2	674167	Frame	15	2	678027	Hose
2	2	686119	Lockwasher, M8	16	2	686369	Fitting
3	2	765352	Capscrew, M8 x 30	17	4	667663	Bearing
4	1	350331	Revolving Connection ■	18	4	668904	Bearing
5	2	604511	Fitting, 6-6	19	4	668905	Bearing
6	2	601676	Fitting, 6-6	20	2	7882	Roll Pin - Inner
7	2	665707	Nut, 1/2 in. ID	21	2	7961	Roll Pin - Outer
8	2	3660	Capscrew, 1/2 NC x 2.50	22	2	667609	Restrictor Cartridge ●
9	8	667225	Washer, 5/8 in. ID	23	1	209067	End Block Bracket
10	8	667644	Capscrew, 5/8 NC x 3.25	24	2	665992	Shoulder Bolt
11	2	667666	Cylinder ▲	25	2	209021	Washer, M10
12	1	667664	Bumper	26	2	208765	Grommet
13	2	611288	Fitting, 6-8				

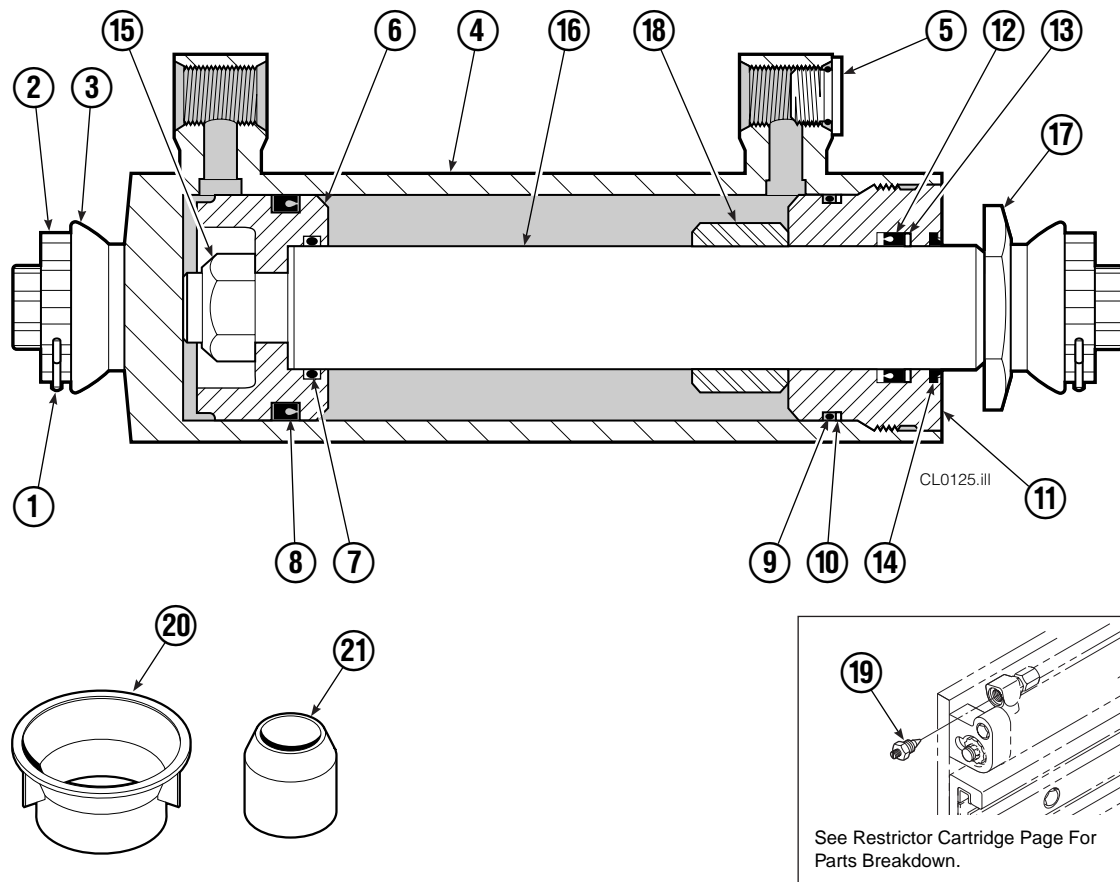
■ See Revolving Connection page for parts breakdown.

▲ See Cylinder page for parts breakdown.

● See Restrictor Cartridge page for parts breakdown.

Reference: SK-5659.

Cylinder



See Restrictor Cartridge Page For Parts Breakdown.

50D			
REF	QTY	PART NO.	DESCRIPTION
		667666	Cylinder Assembly
1	2	6511	Cotter Pin ■
2	2	667667	Nut Retainer ■
3	2	667668	Nut ■
4	1	553760	Shell
5	1	602580	Fitting
6	1	558402	Piston
7	1	2722	O-Ring ▲
8	1	557376	Seal ▲
9	1	2791	O-Ring ▲
10	1	615134	Back-Up Ring ▲
11	1	667675	Retainer
12	1	662451	Seal ▲
13	1	638246	Nylon Ring ▲
14	1	564930	Wiper ▲
15	1	561012	Nut
16	1	667670	Rod
17	1	667676	Washer
18	1	—	Spacer
19	1	667609	Restrictor Cartridge ●
20	1	671049	Seal Loader, Piston ▲
21	1	671052	Seal Loader, Retainer ▲
		667723	Service Kit

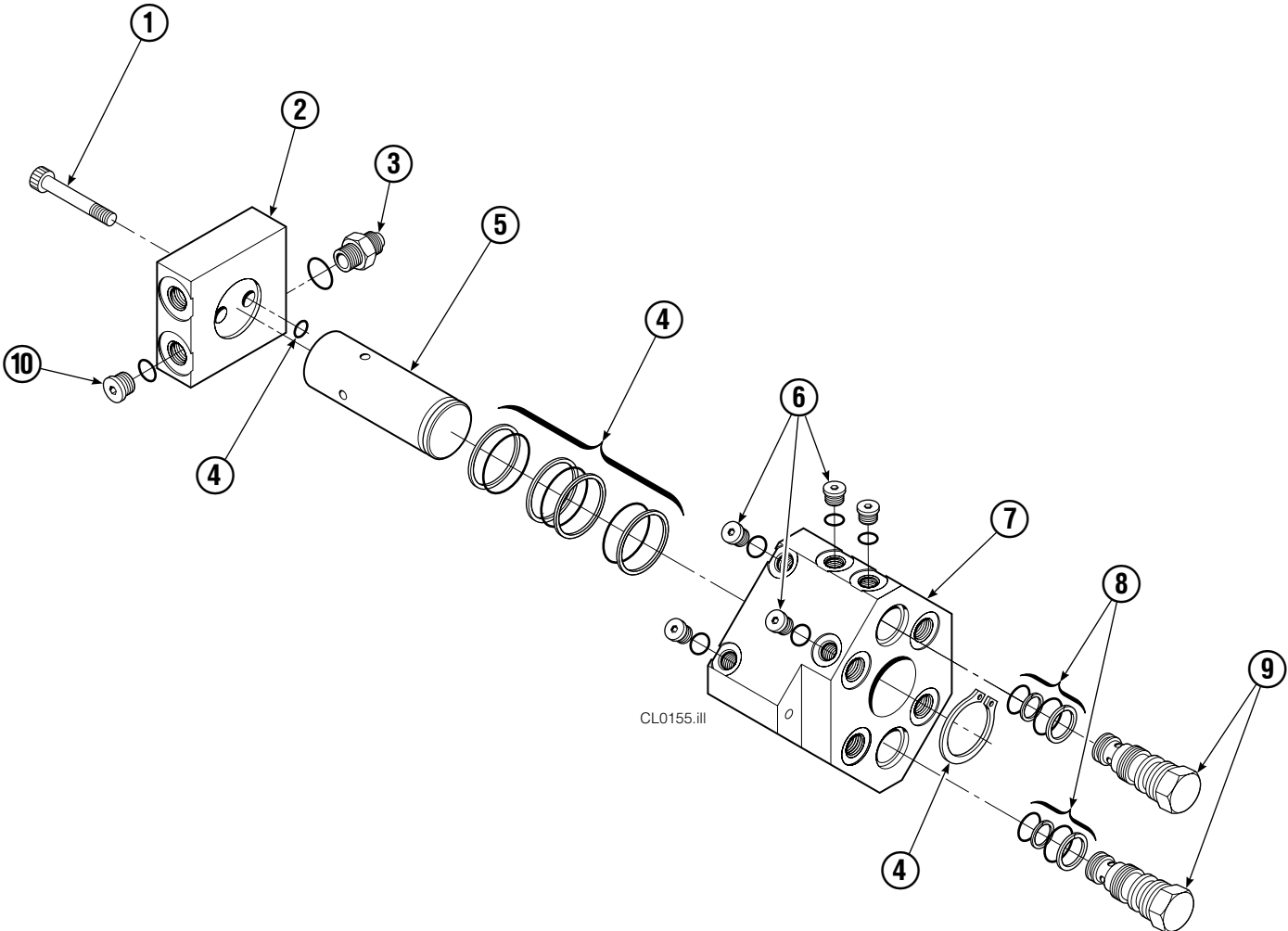
▲ Included in Service Kit 667723.

■ Included in Nut Service Kit 668925.

● Not included in Cylinder Assembly.

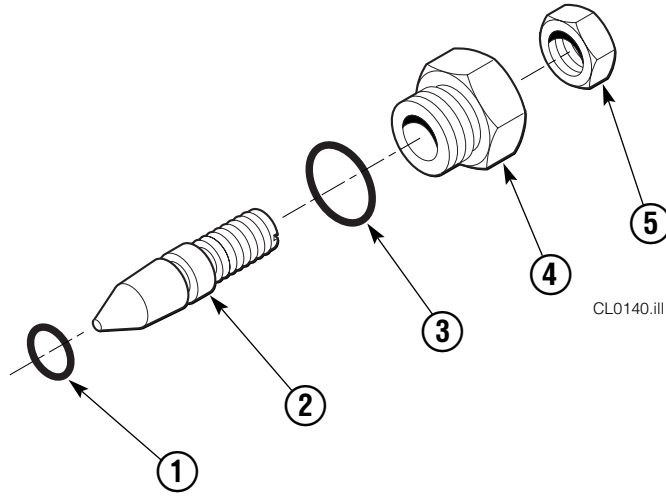
Reference: S-7666.

Revolving Connection



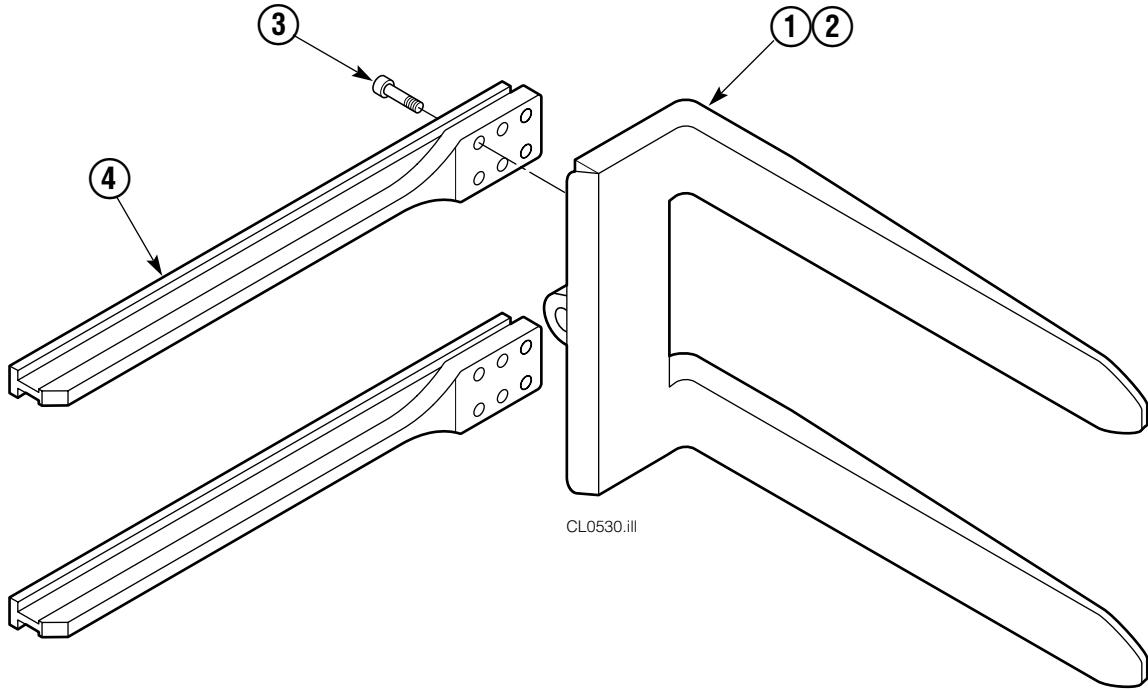
35D/50D			
REF	QTY	PART NO.	DESCRIPTION
		350331	Revolving Connection
1	2	768796	Capscrew
2	1	686421	End Block
3	2	604511	Fitting, 6-6
4	1	687237	Service Kit
5	1	686422	Shaft
6	5	663694	Fitting, 3
7	1	350332	Body
8	2	667516	Check Valve Service Kit
9	2	678376	Check Valve
10	2	604510	Fitting, 6

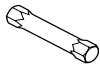
Restrictor Cartridge



REF	QTY	PART NO.	DESCRIPTION
		667609	Restrictor Cartridge
1	1	2701	O-Ring
2	1	667611	Plunger
3	1	2841	O-Ring
4	1	667610	Plug - Special
5	1	5716	Jam Nut

Arm Group



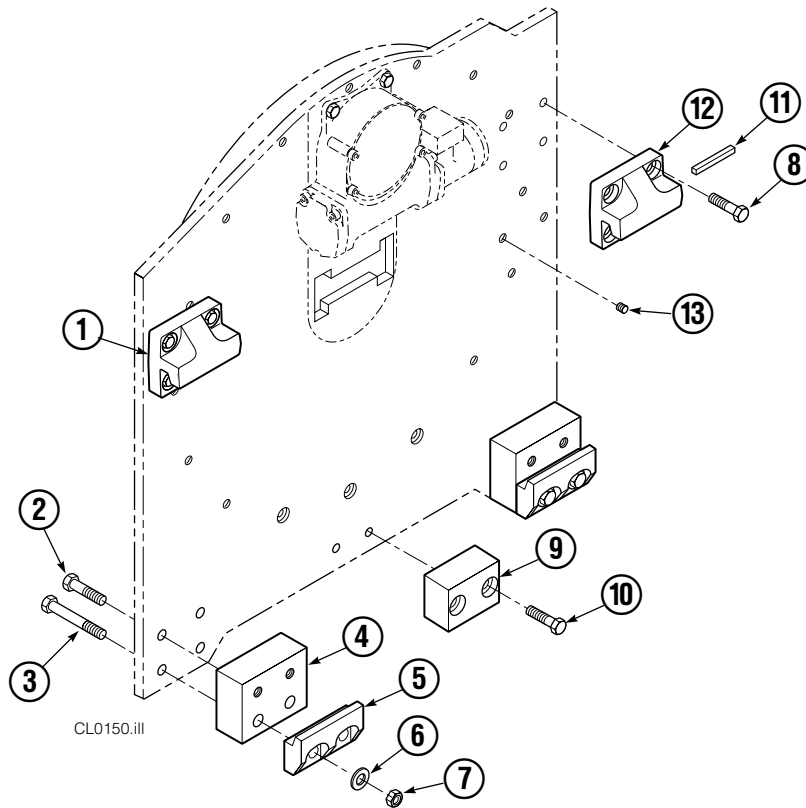
ARM CAPSCREW EXTENSION TOOL		
Required for proper torquing of capscrews		
	35-50D	667699

50D			
REF	QTY	PART NO.	DESCRIPTION
		6030591	Arm Group ▲
1	1	6030590	Arm – LH
2	1	6030590	Arm – RH
3	24	607105	Capscrew
4	4	667700	Arm Bar

▲ Includes items 1-3 only.

Reference: S-7867.

Mounting Group



Class III, 0°			
REF	QTY	PART NO.	DESCRIPTION
		680632	Mounting Group
1	1	670527	Upper Hook – LH
2	4	641284	Capscrew, 5/8 NC x 2.25
3	4	669305	Capscrew, 5/8 NC x 5.00
4	2	682068	Spacer
5	2	675969	Lower Hook
6	4	667225	Washer
7	4	676281	Nut, 5/8
8	8	667369	Capscrew, 5/8 NC x 1.25
9	1	682067	Center Spacer
10	2	677828	Capscrew, 1/2 NC x 1.00
11	1	669344	Stop Kit
12	1	670528	Upper Hook – RH
13	2	631385	Plug, 5/8

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