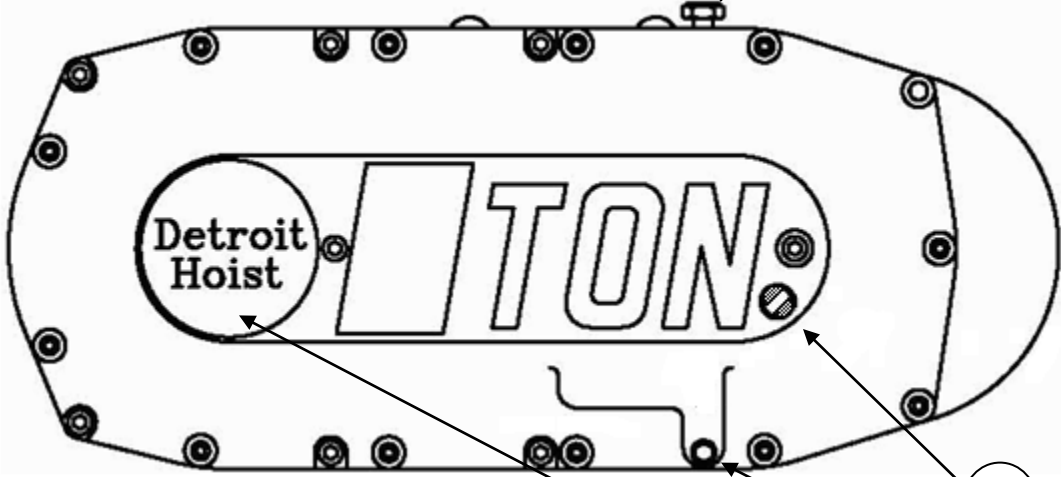
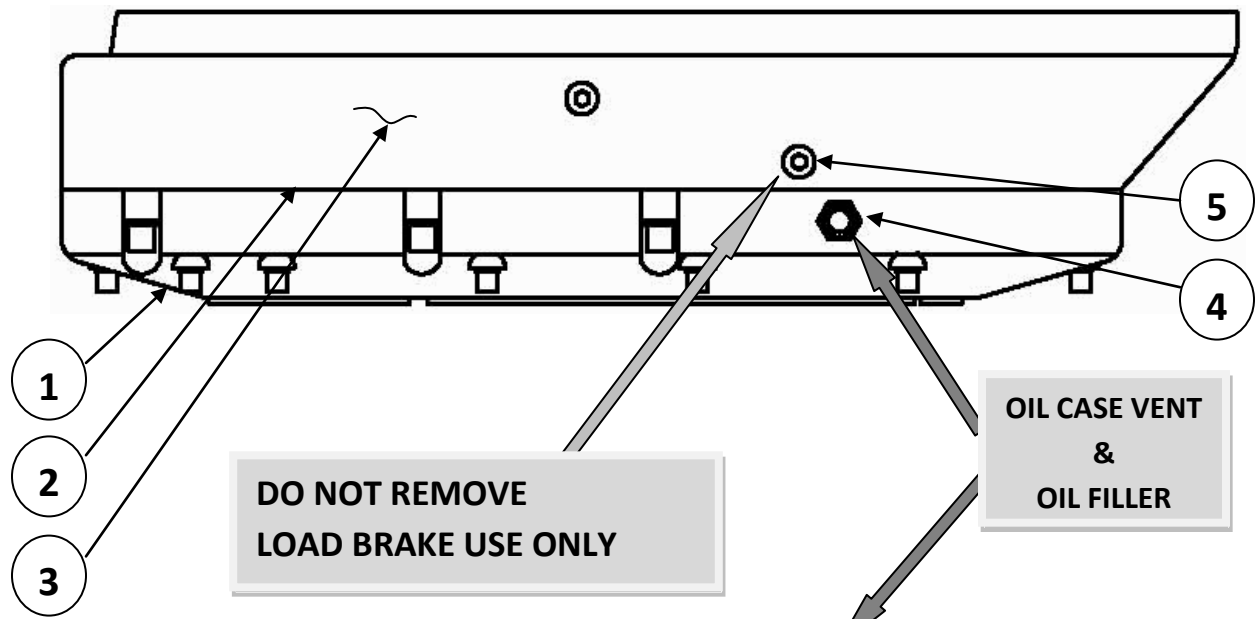


# HOIST GEAR CASE OIL INFORMATION



- 1) Gear Case Cover
- 2) Gear Case Gasket
- 3) Gear Case
- 4) Gear Case Vent
- 5) Load Brake Lock Bolt / Encoder Wiring (DO NOT REMOVE)
- 6) Oil Level View Window
- 7) Oil Drain Plug
- 8) Hoist Serial Number Location

# Gear Box Noise Trouble Shooting Chart

Ratios	1st Pinion		1st Gear		2nd Pinion		2nd Gear		3rd Pinion	
	Teeth / rpm	Rev's Per 10 Sec.	Teeth / rpm	Rev's Per 10 Sec.	Teeth / rpm	Rev's Per 10 Sec.	Teeth / rpm	Rev's Per 10 Sec.	Teeth / rpm	Rev's Per 10 Sec.
50:1	26/1800rpm	300*	121/387rpm	64*	32/387rpm	64*	73/169rpm	28	11/169rpm	28
66:1	26/1800rpm	300*	121/387rpm	64*	26/387rpm	64*	79/127rpm	21	11/127rpm	21
83:1	26/1800rpm	300*	121/387rpm	64*	22/387rpm	64*	83/102rpm	17	11/102rpm	17
105:1	26/1800rpm	300*	121/387rpm	64*	18/387rpm	64*	87/80rpm	13	11/80rpm	13

( \* ) Denotes : These speeds may have a Humming , Squealing Sound

Ratios	3rd Gear		Drum	
	Teeth / rpm	Rev's Per 10 Sec.	Teeth	Rev's Per 10 Sec.
50:1	52/35rpm	5	35rpm	5
66:1	52/26rpm	4	26rpm	4
83:1	52/22rpm	3	22rpm	3
105:1	52/17rpm	2	17rpm	2

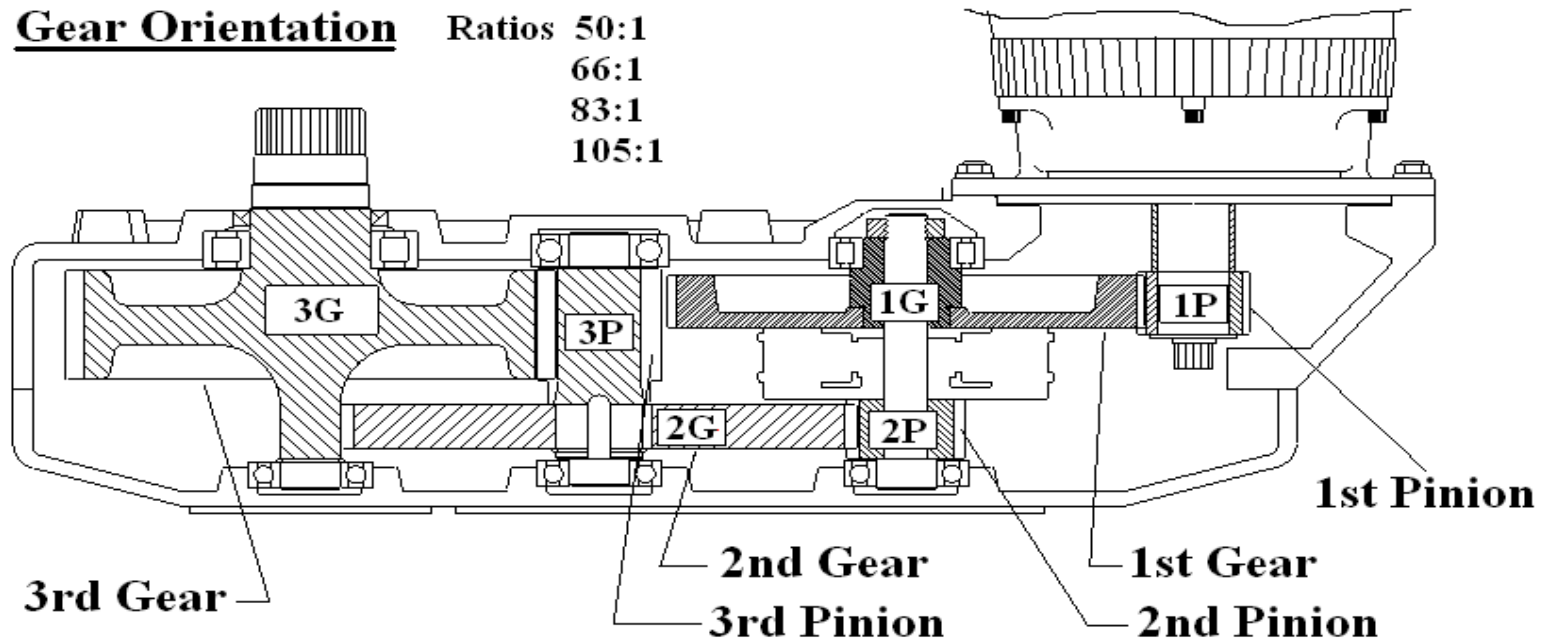
**Instructions**

**How to Use Chart.**

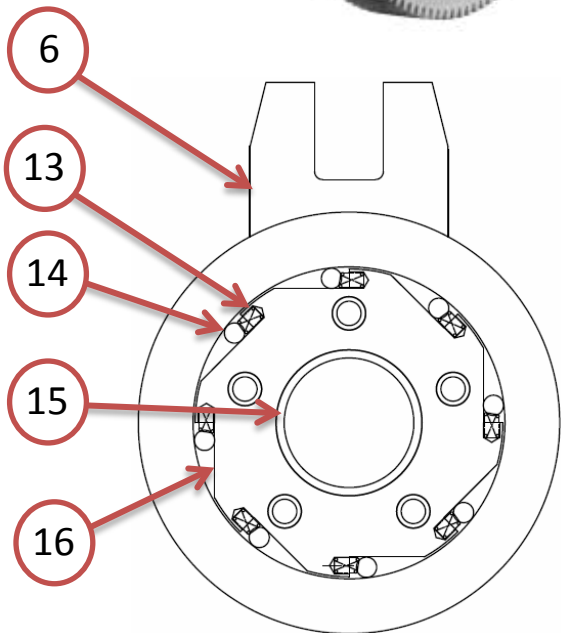
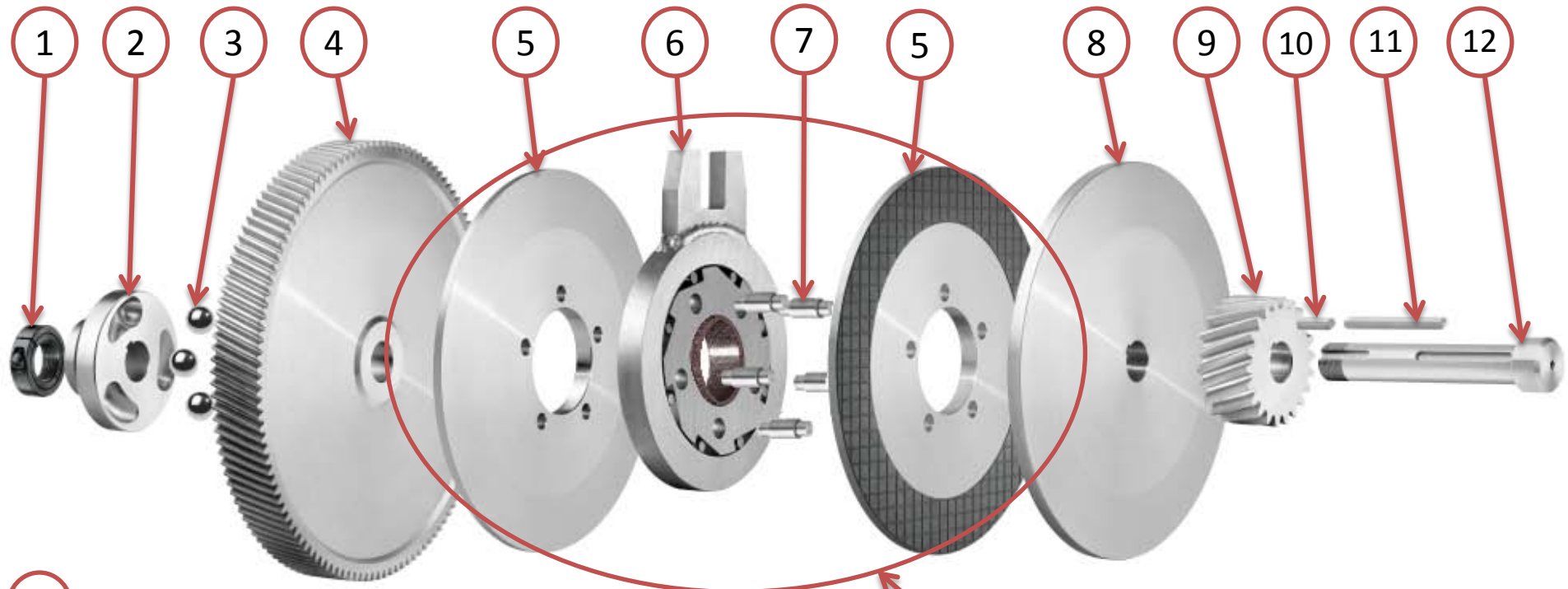
- 1st) Identify which gear ratio Gear box You Have
- 2nd) Run Hoist
- 3rd) Listen to the Noises you here
- 4th) Count How many times you her the noise in 10 seconds
- 5th) Go to chart and mach the noise frequency with Pev's Per Sec.

**Gear Orientation**

Ratios 50:1  
66:1  
83:1  
105:1



# ***Load Brake Assembly (Exploded View)***

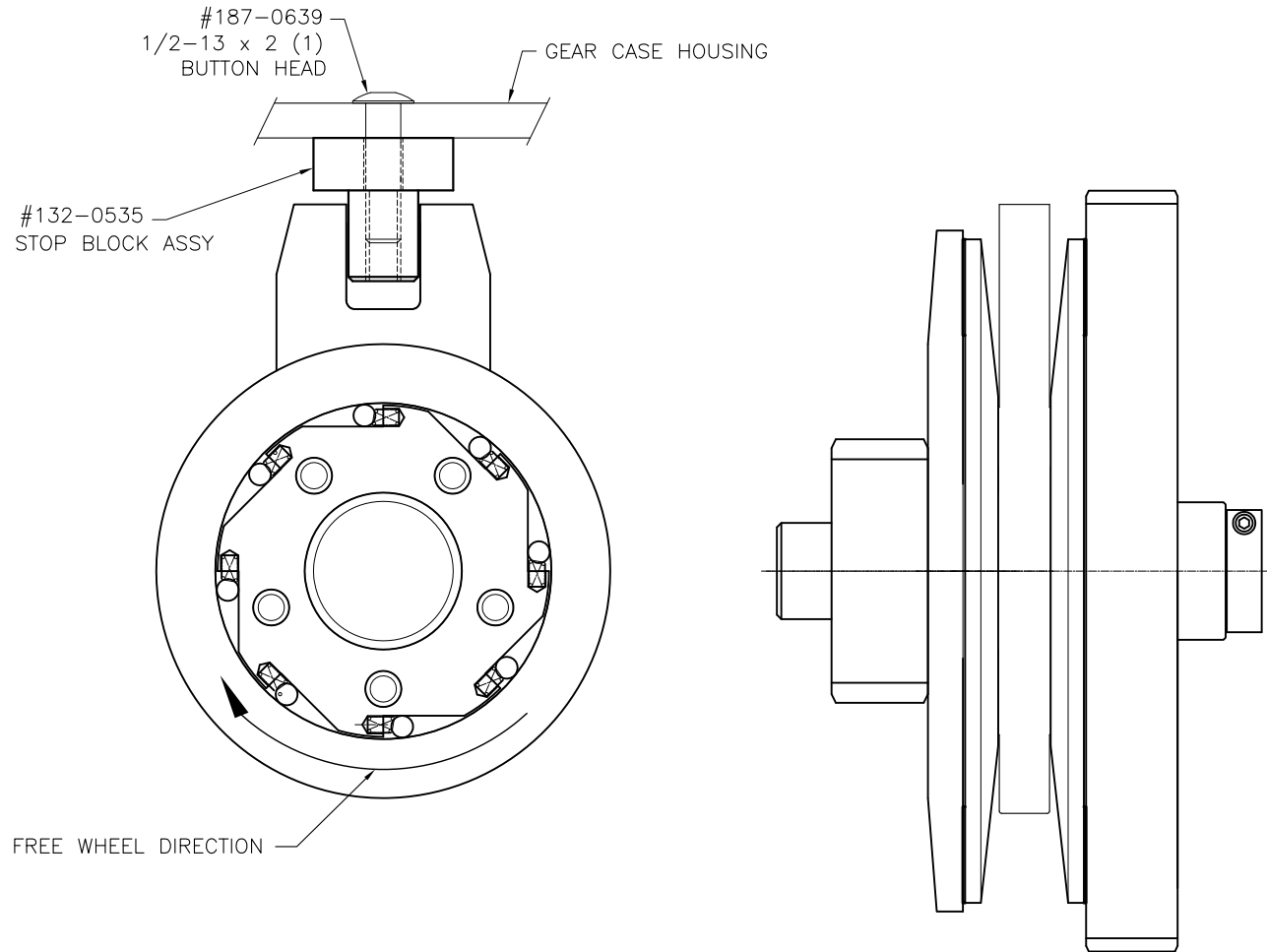


Sold As An Assembly

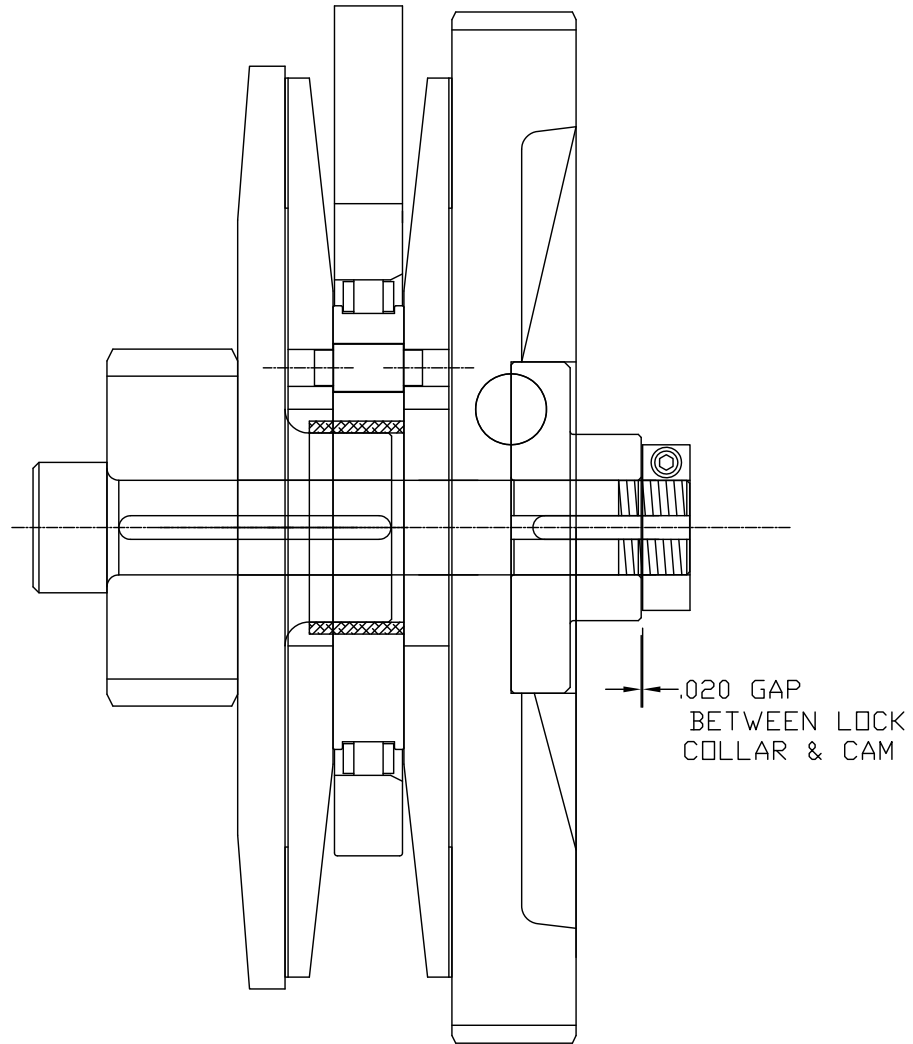
## **Load Brake Parts List**

- |  |  |
|--|--|
| 1.) 120-1711 Lock Collar (1)                   | 10.) 120-1729 Key (1) (For Ball Cam Item #2)                   |
| 2.) 132-0365 Ball Cam (1)                      | 11.) 120-0955 Key (1) (For Back Disc & 2 <sup>nd</sup> Pinion) |
| 3.) 1301065 Ball (3)                           | 12.) 120-0914 Shaft (1)  |
| 4.) 130-1530 1 <sup>st</sup> Gear (1)          | 13.) 120-0750 Spring (8)                                       |
| 5.) 120-0737 Load Brake Disc 9.5 (2)           | 14.) 130-1551 Dowel Pin (8)                                    |
| 6.) 130-1550 Holding Ring (1)                  | 15.) 140-1624 Bushing (1)                                      |
| 7.) 050-0371 Pin (5)                           | 16.) 130-1545 Cam (1)  |
| 8.) 132-0355 Back Disc (1)                     |  |
| 9.) 132-0500 105:1 -18T 2 <sup>nd</sup> Pinion |  |
| 132-0500 83:1 -22T 2 <sup>nd</sup> Pinion      |  |
| 132-0500 66:1 -26T 2 <sup>nd</sup> Pinion      |  |
| 132-0500 49:1 -32T 2 <sup>nd</sup> Pinion      |  |

# LOAD BRAKE STOP BLOCK ASSEMBLY

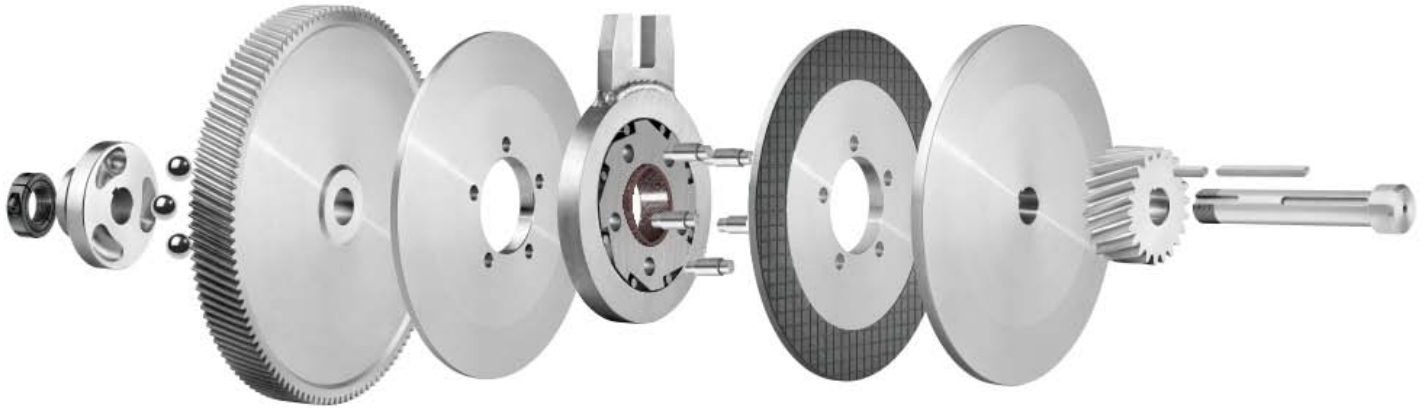


# LOAD BRAKE ASSEMBLY CAM SET-UP



# Mechanical Load Brake

Cam Engaged – Oil Submerged – Kevlar Composite Linings



## Load Brake Adjustment / Partial Replacement / Complete Replacement

1. Remove complete load brake assembly including gear, pinion & shaft
2. Remove shaft collar, adjustment cam and gear.
3. Check brake discs for flatness and thickness (flatness within .005" / thickness .050" min) / replace brake discs if required.
4. Remove holding ring from ratchet cam (note cam direction for reinstallation)
5. Check roller pin surfaces for wear marks and replace complete load brake assembly if wear marks are visible.
6. Reassemble load brake assembly, gears and shaft (note: If installed backwards, the load brake assembly will stall the hoist in the up motion)
7. Reinstall the adjustment cam and shaft collar, tightening the collar hand tight only
8. Secure the collar position by tightening the collar set screw
9. Engage the load brake by turning the gear and the holding ring in opposite directions to check the gap between the cams
10. Readjust the shaft collar if the gap is out of range (.020"-min: .021"-max)
11. Reinstall Into gear case
12. Install New Gasket.
13. Refill Gear Case with 8 Quarts Lucas Universal Hydraulic Fluid

**Notes:** \*Before installing new brake discs or a complete load brake assembly submerge the brake discs in oil to prevent them from running dry during start-up  
\*See parts description list for identification.