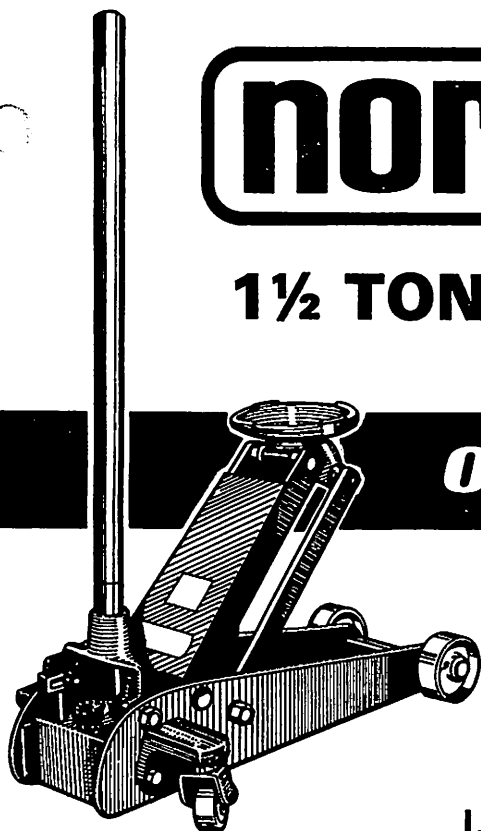




model YM-150M

1½ TON HYDRAULIC GARAGE JACK

OPERATING INSTRUCTIONS

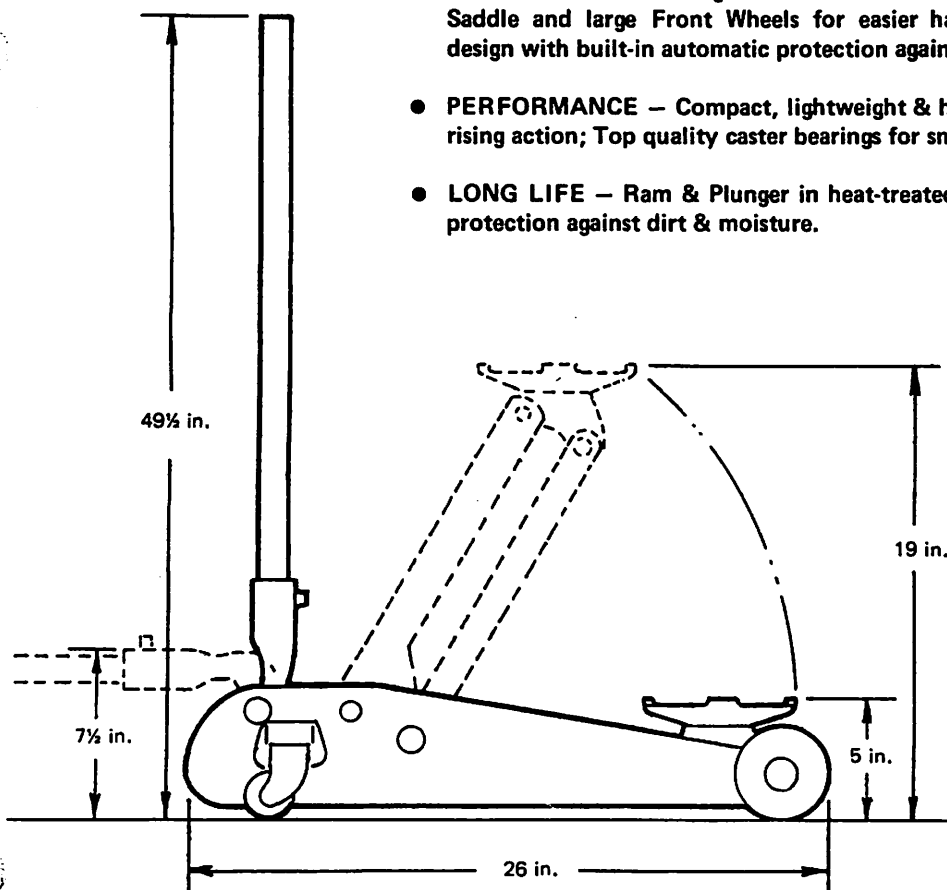


IMPORTANT:

*READ THIS MANUAL CAREFULLY BEFORE
PUTTING THIS JACK INTO USE.*

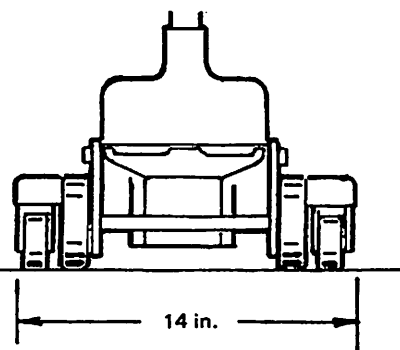
I. SIGNIFICANT DESIGN FEATURES

- **SAFETY** — Extra strength construction — wide frame for better load distribution; Large Saddle and large Front Wheels for easier handling, better stability; Advanced Hydraulic design with built-in automatic protection against overload and over-extension of Ram stroke.
- **PERFORMANCE** — Compact, lightweight & highly mobile; large diameter Plunger for faster rising action; Top quality caster bearings for smooth & safe movement.
- **LONG LIFE** — Ram & Plunger in heat-treated polished chrome; with special Dust seals for protection against dirt & moisture.



II. SPECIFICATIONS

Capacity (tons)	Net Weight (lbs)
1.5	84



division of NORCO INDUSTRIES, INC.

15934 S. Figueroa St., Gardena, California 90248 • (213) 321-0970

III. OPERATION OF JACK

To purge any air from the hydraulic system, open Release Valve (by turning handle counter-clockwise), then operate pump handle several times.

RAISING THE JACK

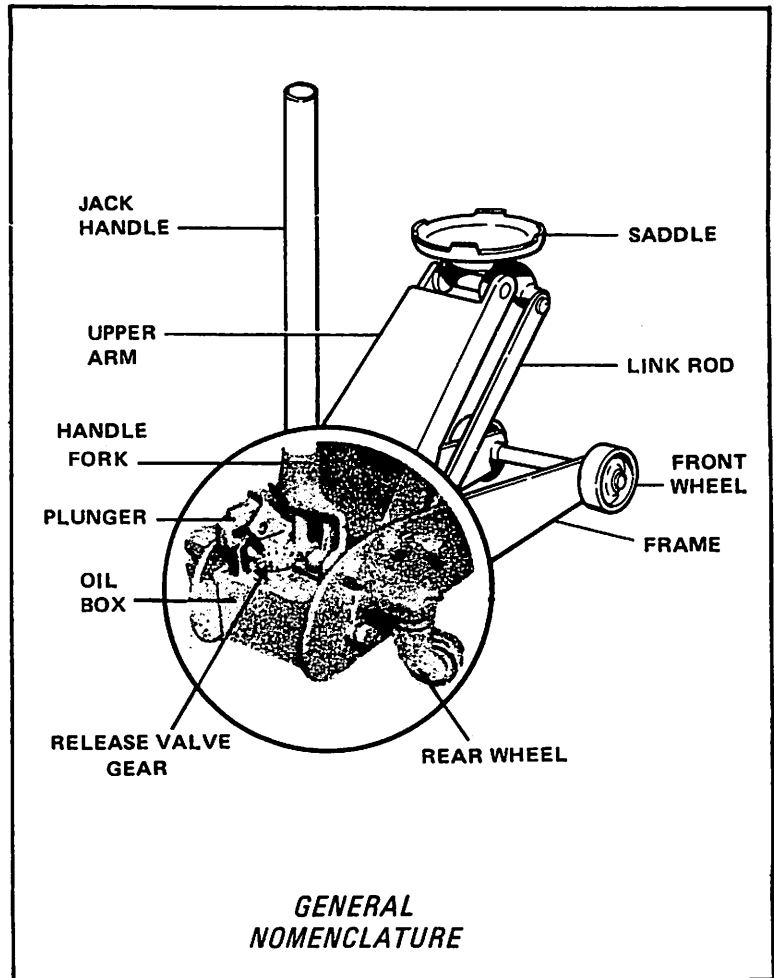
1. Close Release Valve **TIGHTLY** (by turning handle clockwise)
2. Position jack under load so that saddle will contact load firmly and is centered so it cannot slip.
3. Operate jack handle until saddle approaches contact with load. Once again check to see that saddle is correctly positioned.
4. Raise load to desired height. Transfer to Jack Stands if load is to be held up for an extended period.

CAUTION

THIS JACK IS DESIGNED FOR JACKING PURPOSES ONLY. AFTER JACKING, ALWAYS USE SAFETY STANDS TO SUPPORT LOAD BEFORE MAKING REPAIRS. FOR YOUR SAFETY-DO NOT OVERLOAD THIS JACK BEYOND ITS RATED CAPACITY.

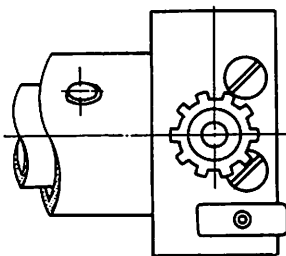
LOWERING THE JACK

Open Release Valve **VERY SLOWLY** (by turning handle counter-clockwise). When Release Valve is opened, saddle can be easily lowered by hand or foot.



HYDRAULIC SYSTEM PARTS

- (A) JACK HANDLE
- (B) PLUNGER
- (C) TANK, RESERVOIR
- (D) OIL STRAINER
- (E) SUCTION VALVE
- (F) DELIVERY VALVE
- (G) CYLINDER
- (H) RELEASE VALVE
- (I) GEAR-DRIVE, RELEASE VALVE
- (J) GEAR-DRIVEN, RELEASE VALVE
- (K) SAFETY OVERLOAD VALVE
- (L) BY-PASS VALVE
- (M) RELEASE SPRING
- (N) RAM



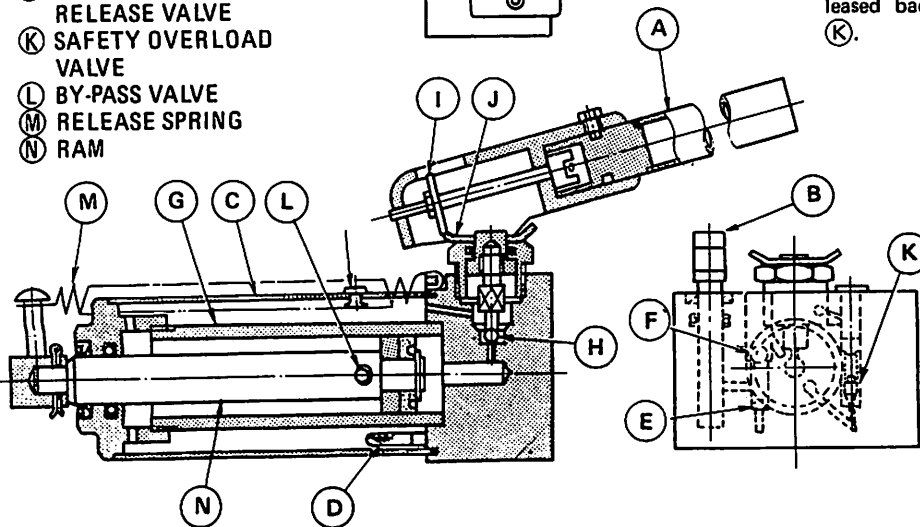
Operating Principles

With Release Valve (H) **TIGHTLY CLOSED**:

1. Upward stroke draws oil from Reservoir Tank (C) thru Suction Valve Ball (E) into Plunger Cavity. Hydraulic pressure keeps Valve (F) closed, keeping oil in cylinder.
2. Downward stroke of Plunger (B) forces oil into Cylinder thru Delivery Valve Ball (F). Ram (N) is forced out, raising saddle.

If load exceeds rated capacity, oil is automatically released back into Reservoir thru Safety Overload Valve (K).

3. When Ram (N) reaches maximum stroke, oil is by-passed back into Reservoir thru By-Pass Valve (L), thus preventing over-extended Ram Stroke.



When Release Valve (H) is opened, oil is allowed to flow back into Reservoir, releasing hydraulic pressure on Ram and permitting saddle to be lowered.

IV. MAINTENANCE PROCEDURES

This Floor Service Jack is among the finest available on the market and will give you many years of trouble-free operation if properly maintained. The instructions below will help you carry out a thorough preventive maintenance program.

MAINTAINING OIL LEVEL

IMPORTANT: When adding or replacing oil, always use a good grade, Hydraulic Jack Oil (or transmission oil, turbine oil, etc.). Avoid mixing types of oil. DO NOT use Brake Fluid, Alcohol, Glycerine, detergent motor oil, or dirty oil. Improper fluid can cause serious internal damage to Jack.

Adding Oil: With Saddle fully lowered & jack on level ground, remove Filler Cap. Oil level should be approx. 3/16" below cap hole. If low, add oil as needed.

Replacing Oil: for better performance & long life, replace oil supply once a year. To drain oil, remove Filler Plug & Release Valve. BE VERY CAREFUL not to permit dirt or foreign matter to get into the system.

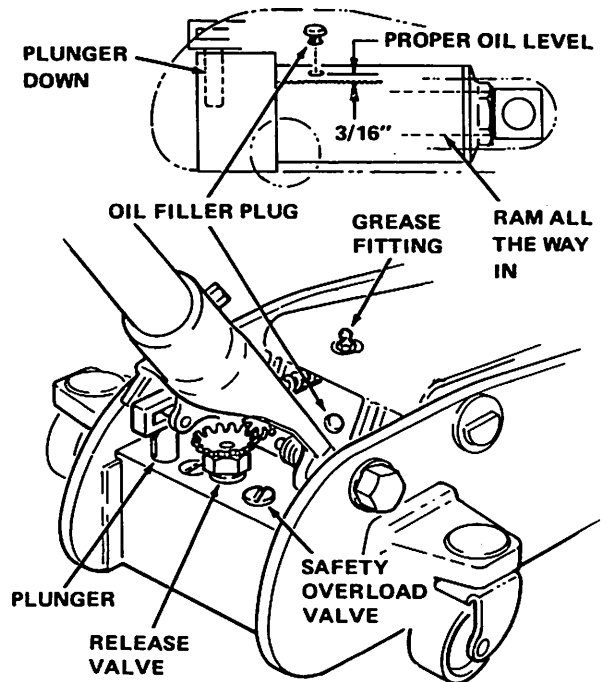
LUBRICATION

Add grease to Upper Arm Grease Fitting every 3 months.

PREVENTING RUST

Check Ram & Plunger every 3 months for any signs of rust or corrosion. Clean as needed and wipe with an oily cloth.

When not using the jack, always leave the Saddle & Pump Plunger all the way down.



V. TROUBLE SHOOTING (USING JACK WITHIN RATED LOAD CAPACITY)

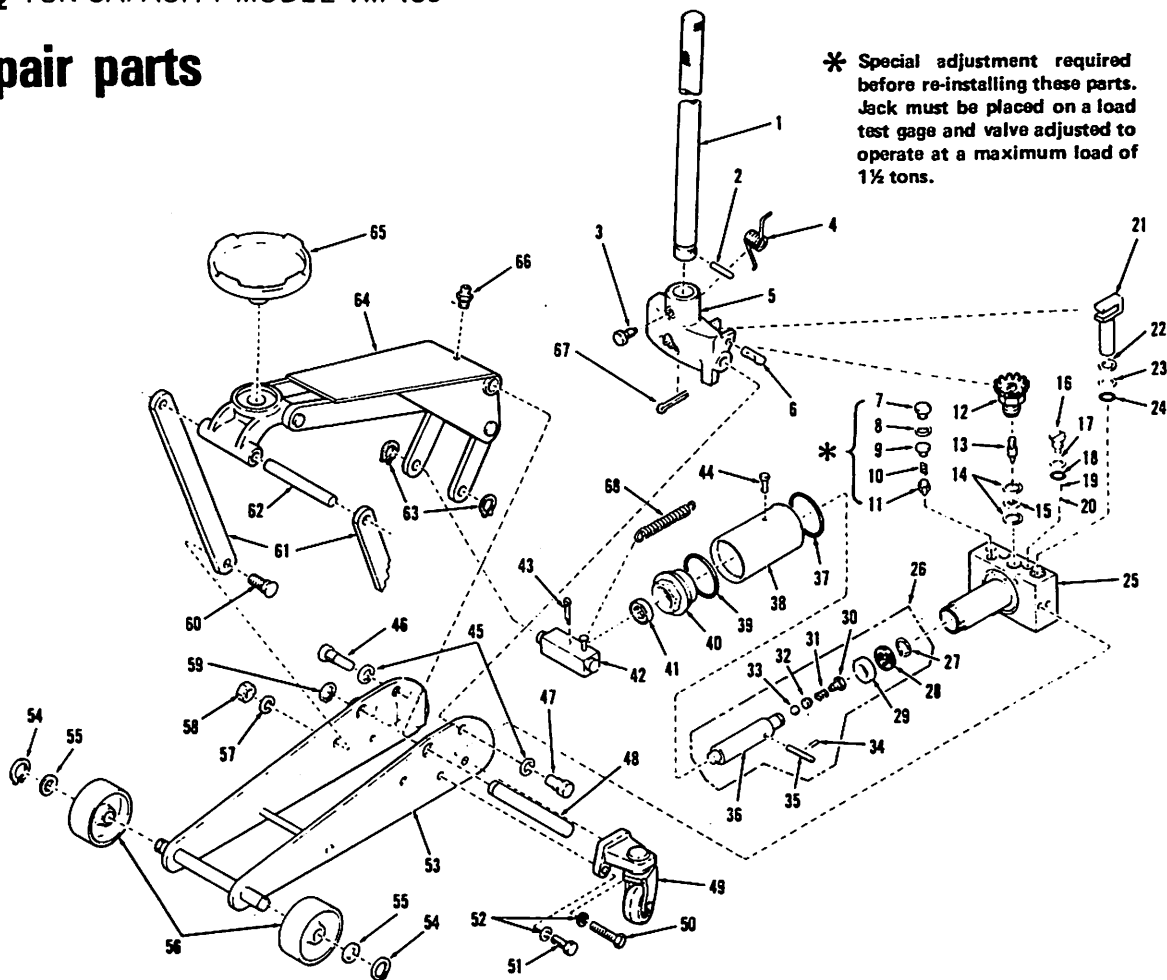
TROUBLE	POSSIBLE CAUSE	REMEDY
Will not lift load at all	1) No Oil in system 2) Release Valve not closed 3) Delivery Valve and/or By-Pass Valve not functioning 4) Defective Packings ("O" rings)	1) Fill to prescribed level 2) Turn handle clockwise tightly 3) Check for dirt or foreign matter – clean 4) Replace Packings
Will lift load only part way	5) Oil level low	5) Fill to prescribed level
Will lift load, but will not hold	6) The following Valve or Valves leaking: (a) Suction Valve, (b) Delivery Valve, (c) Release Valve, (d) By-Pass Valve 7) Packings worn out or defective	6) Inspect Valves – clean and adjust as needed 7) Replace Packings
Jack will not lower	8) Release Valve stuck – probably dirt or foreign matter	8) Transfer load & clean Release Valve
Poor lifting	9) Defective Pump Packings and/or Valves malfunctioning. 10) Dirty Oil 11) Air in Hydraulic System	9) Clean Valves, replace Packings 10) Change Hydraulic Oil 11) Purge Air from system

IF TROUBLE PERSISTS, CONSULT YOUR NEAREST DEALER, DISTRIBUTOR, OF FACTORY REPRESENTATIVE.

HYDRAULIC FLOOR SERVICE JACK

1½ TON CAPACITY MODEL YM-150

repair parts



INDEX NO.	DESCRIPTION	PART NO.	QTY.
1	Handle	215005	1
2	Pin, Spring	27001	1
3	Set screw, handle	23001	1
4	Spring	24001	1
5	Handle fork assy.	215010	1
6	Connecting pin plunger	27002	1
7	Cap plug, safety overload valve	215011	1
8	Packing, rubber	215012	1
9	Retainer	215013	1
10	Spring	24002	1
11	Valve, safety overload (Factory Adj)	215014	1
12	Release valve assy.	215015	1
13	Valve, release	215016	1
14	Packing, copper	215017	2
15	Collar	215018	1
16	Bolt	31001	1
17	Ring, back up	215019	1
18	O-Ring	215021	1
19	Ball, steel-delivery valve .375 dia	9008	1
20	Ball, steel-suction valve .250 dia	9004	1
21	Plunger, pump	215024	1
22	Seal, oil	28001	1
23	Ring, back up	215026	1
24	O-Ring	215027	1
25	Oil box assy.	215050	1
26	Piston Rod Sub-Assy Includes:	215150	1
27	Ring, snap	215051	1
28	Packing, U. type	215052	1
29	Retainer, ram packing	215053	1
30	Screw, by-pass	215054	1
31	Spring	24003	1
32	Retainer, spring	215056	1
33	Ball, steel .250 dia	9004	1
34	Valve pin, by-pass	215057	1
35	Limit pin, by-pass	27007	1
36	Rod, piston	215053	1

INDEX NO.	DESCRIPTION	PART NO.	QTY.
37	O-Ring	215059	1
38	Tank, oil reservoir	215061	1
39	O-Ring	215062	1
40	Nut, tank	21001	1
41	Seal, oil	28002	1
42	Connecting joint, piston	215063	1
43	Cotter Pin	27004	1
44	Plug, oil filler	215064	1
45	Lockwasher, spring	22001	2
46	Shaft (B) handle	215066	1
47	Shaft (A) handle	215067	1
48	Pin arm	215068	1
49	Caster Assy.	215080	2
50	Bolt, 1 1/2"	31002	2
51	Bolt, 1 1/8"	31003	2
52	Lockwasher, spring	22002	4
53	Frame assy.	215100	1
54	Ring, snap	215071	2
55	Washer	22003	2
56	Wheel, front	215072	2
57	Lockwasher, spring	22004	2
58	Nut	21002	2
59	Ring, snap	215073	1
60	Pin (B), link	27004	2
61	Rod, link	215074	2
62	Pin (A), link rod	27005	1
63	Ring, Snap	215076	2
64	Arm Assy.	215120	1
65	Saddle	215121	1
66	Grease nipple	215122	1
67	Pin, cotter	27006	1
68	Spring	24004	1