

# LIMIT SWITCH KIT 29140 for FA150KGMR *MAN RIDER*™ WINCH

This instruction sheet provides information for the limit switch kit on a FA150KGMR *Man Rider*™ winch. Use this sheet in conjunction with Parts, Operation and Maintenance Manual Form No. MHD56234, Edition 2.

## INSTALLATION INSTRUCTIONS

### General Instructions

Drawing references and page numbers are from Parts, Operation and Maintenance Manual Form No. MHD56234, Edition 2, unless otherwise referenced, and shall be used in conjunction with this instruction sheet.

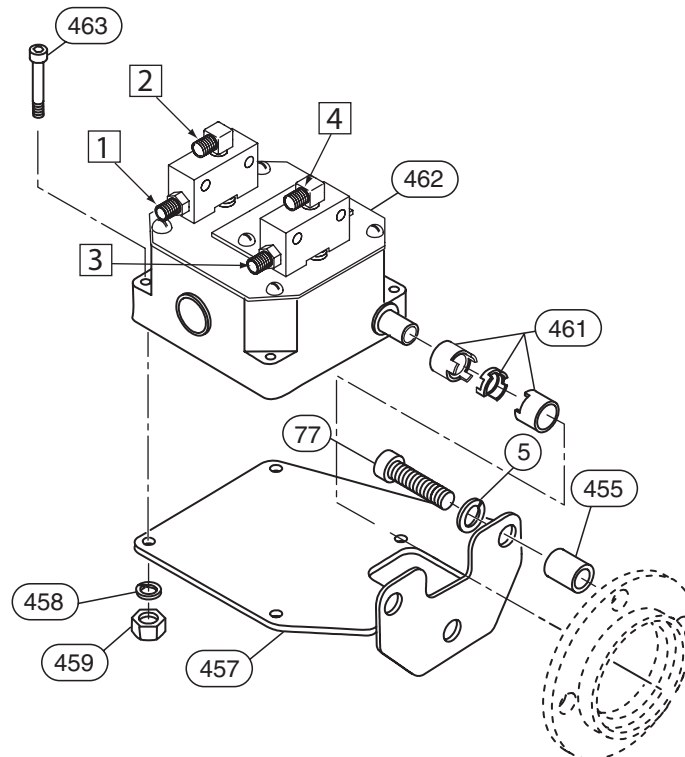


- Shut off, bleed down and disconnect air supply line before installing new limit switch kit.

### Disassembly

Refer to Dwg. MHP2479 on page 1.

1. Mark the hoses at the existing locations using Numbers 1 through 4. Refer to Dwg. MHP2479.
2. Disconnect the 4 hoses from the existing limit switch assembly (462).
3. Remove capscrews (77), limit switch assembly (462) and bracket (457).

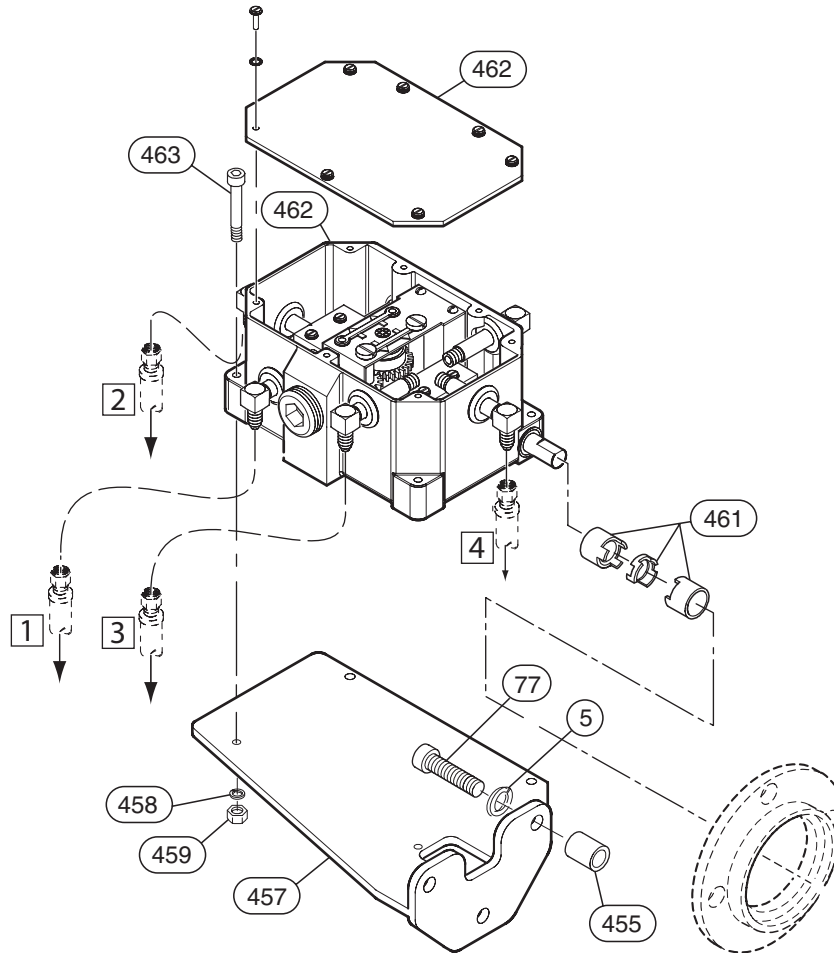


(Dwg. MHP2479)

## Assembly

Refer to Dwgs. MHP2456 on page 2 and MHP2260 on page 34.

1. Install new bracket (452) to upright (64) loosely using new spacers (455), capscrews (77) and lockwashers (5).
2. Install new coupling half (461) onto limit switch assembly (462) and tighten setscrew.
3. Install coupling spider into coupling half on limit switch.
4. Fit limit switch assembly into location by aligning coupling halves, and sliding coupling together.
5. Install new capscrews (463), lockwashers (458) and nuts (459).
6. Tighten capscrews that attach bracket to upright.
7. Loosen setscrew on coupling half attached to limit switch.
8. Slide coupling half tightly against other coupling half.
9. Tighten setscrew.
10. Attach the hoses at locations.



(Dwg. MHP2456)

## Parts List

Item No.	Description of Part	Qty Total	Part Number
---	Limit Switch Kit	1	29140
5	Lockwasher	3	50200
77	Capscrew	3	51769
455	Spacer	3	14998-7
457	Bracket	1	29089
458	Lockwasher	4	52909
459	Nut	4	53548
461	Coupling Half	1	71390199
	Coupling Spider		71390207
462	Limit Switch Assembly	1	71402119
463	Capscrew	4	54493

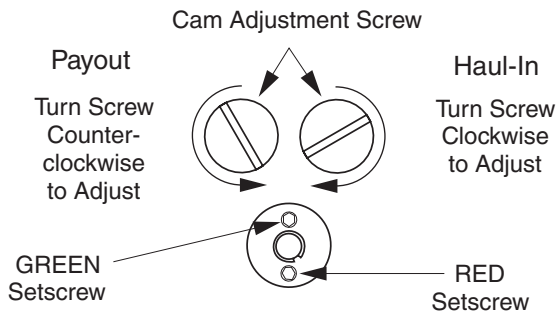
## Limit Switch Adjustment

Refer to Dwg. MHP0607 on page 3.

Operate winch in both directions to activate limit switches. Limit switches should engage at established setting  $\pm 2$  ft (0.7 m), and prevent winch operation until reset by shifting winch operating direction.

### To set for maximum wire rope payout:

1. Remove cover plate from top of limit switch (462).
2. Loosen green setscrew in center of limit switch, below access cover.
3. Position winch wire rope at desired payout position.
4. Rotate left cam adjustment screw **counterclockwise** until it fully activates cutoff valve, causing system air to vent. 2.75 turns of the cam adjustment screw are required for each full cam revolution.
5. Hold cam adjustment screw in position (venting air) and tighten green setscrew to lock cam in place.
6. If required, adjust haul-in limit switch. Test winch setpoints by operating winch through three complete cycles to ensure consistent limit switch operation within  $\pm 2$  ft (0.7 m) of setpoints.
7. Install access cover when final adjustments are complete.



(Dwg. MHP0607)

### To set for maximum wire rope haul-in:

1. Remove cover plate from top of limit switch (462).
2. Loosen red setscrew in center of limit switch, below access cover.
3. Position winch wire rope at desired haul-in position.
4. Rotate right cam adjustment screw clockwise until it fully activates cutoff valve, causing system air to vent. 2.75 turns of cam adjustment screw are required for each full cam revolution.
5. Hold cam adjustment screw in position (venting air) and tighten red setscrew.
6. If required, adjust payout limit switch. Test winch setpoints by operating winch through three complete cycles to ensure consistent limit switch operation within  $\pm 2$  ft (0.7 m) of setpoints.
7. Install access cover when final adjustments are complete.

## United States Office Locations

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