REDMOND GARY RG AUSTRALIA PTY.LTD.
ACN: 070 053 584 ABN: 39 070 053 584
23 - 25 Production Ave
Molendinar, QLD, 4214
Australia
www.rg.com.au
Phone: 07 55949844
Fax: 07 55949079
Email: sales@rg.com.au

SERVICE BULLETIN

MEWP – Fitment of Alternative DC Pump

Doc. No.: 601048-10 **Date: 29/06/2022**

Rev No.:	Date:	Author:	Description:
	29/06/2020	W. Ward	Original issue

Applicable Vehicles:	Redmond Gary TF Pre-EN280, TF EN280 and TL series MEWPs
Issue Date:	29 June 2022
Overview:	This procedure outlines the actions required to correctly replace the standard DC Pump and fit an alternative.

Ensure all of this work is carried out in a safe working environment. All work is to be carried out by a competent tradesperson.

Parts & Equipment Required:

- Safety Glasses & relevant PPE
- Standard electrician and hydraulic fitter's tools:
  - Spanner / Socket set
  - Allen Key set
  - Small bucket or container, rags, etc.
  - Side cutters, zip-ties, etc. (if required)
- 50FMP08D10124VHD – EWP DC Pump 24V *(EPB210628HY-WHI-111200)*
- Pre-made ground (GND) wire assembly

Additional parts for TF series MEWPs:

Qty.	Part No.	Description
1	50BS74-0612	3/8" BSPP MALE – 3/4" JIC MALE – STRAIGHT
1	50BS76-0609	3/8" BSPP MALE – 9/16" JIC MALE – 90° ELBOW

Additional parts for TL series MEWPs:

Qty.	Part No.	Description
1	50BS76-0612	3/8" BSPP MALE – 3/4" JIC MALE – 90° ELBOW
1	50BS76-0609	3/8" BSPP MALE – 9/16" JIC MALE – 90° ELBOW

Please read and understand the following instructions prior to start work.

1 Introduction

Due to issues related to the supply of the standard DC Pump (*MP08D101-24V-HD*), this alternative DC Pump (*EPB210628HY-WHI-111200*) can be used in its place. It is a near direct replacement for the typical DC Pump fitted to most TF series and TL series MEWPs. The main differences between the standard and the alternative are the inclusion of a thermal protection switch on the DC motor, and the pump is manufactured with 3/8" BSP ports for both suction and pressure.

2 Alternative DC Pump overview

The DC Pump is typically located at the road-side front of the subframe as per Figure 1.

Figure 1: Typical DC Pump location on MEWP

Details of the Alternative DC Pump shown in the following images:

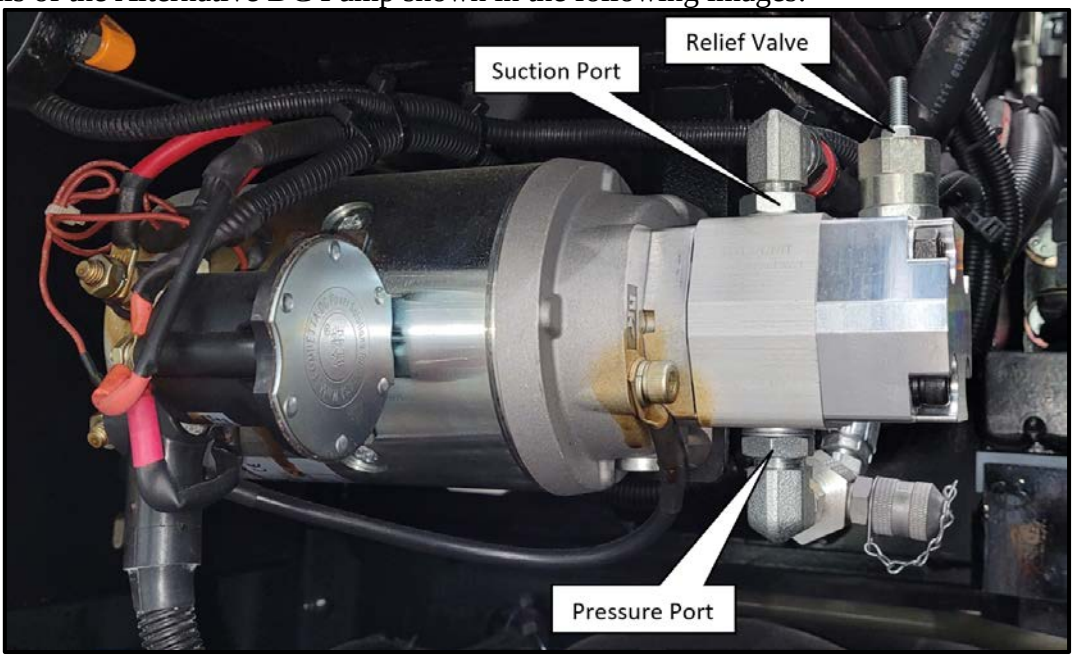

Figure 2: Alternative DC Pump with labelled ports and relief valve

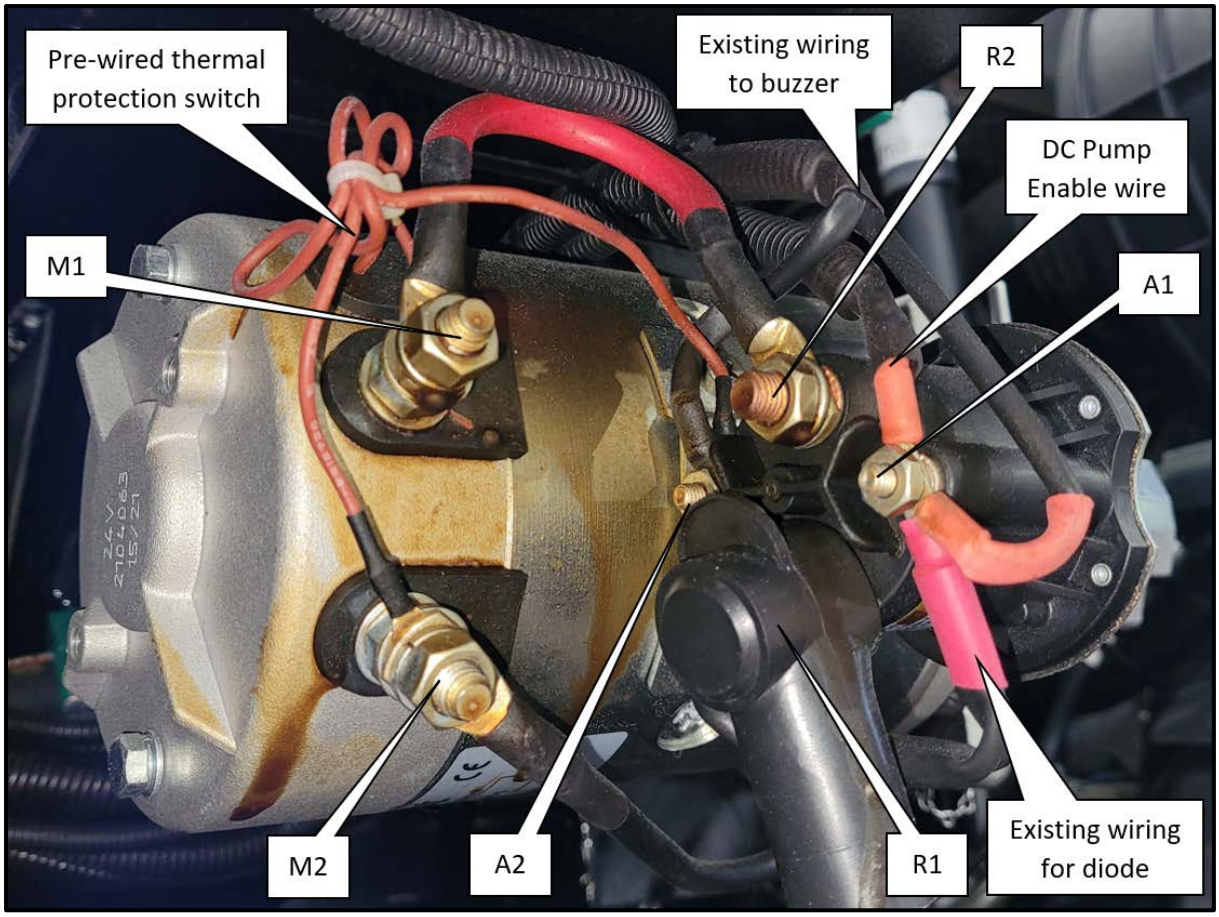

Figure 3: Alternative DC Pump terminal and wiring identification (TF EN280 & TL series MEWPs)

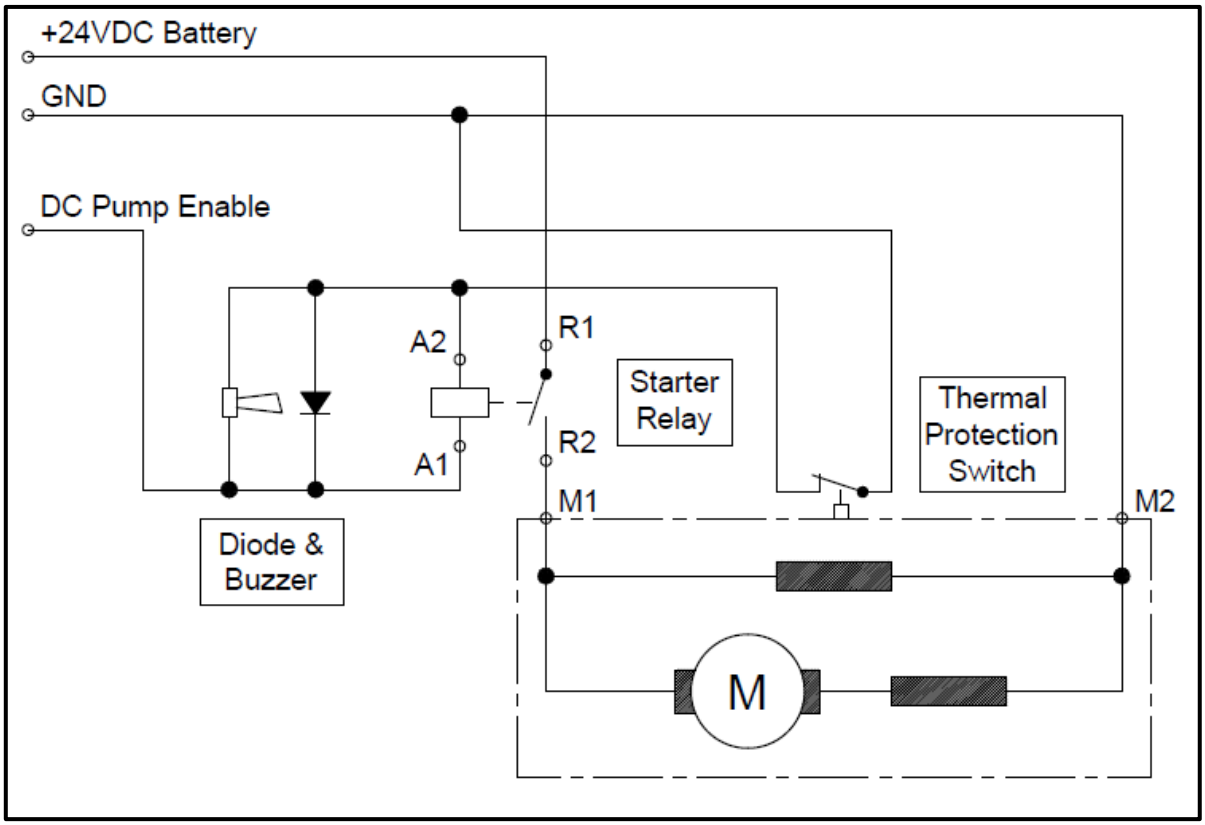

Figure 4: Circuit illustration of Alternative DC Pump wiring (TF EN280 & TL series MEWPs)

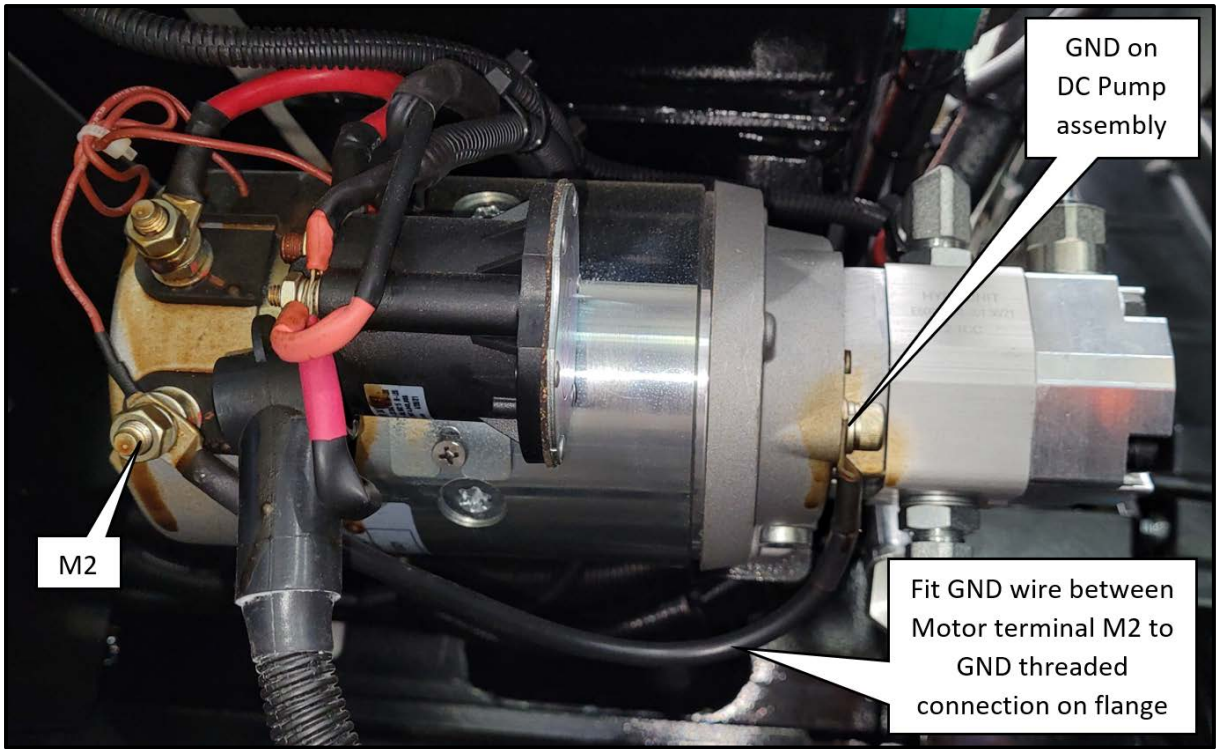

Figure 5: Alternative DC Pump GND wire

3 Procedure to fit Alternative DC Pump to <u>TF EN280 & TL series MEWPs</u>

1. Set up and position the MEWP to provide the most access to DC Pump
2. Turn the truck key switch off and isolate the batteries
3. Identify and mark the suction and pressure hydraulic hoses to the installed DC Pump, then disconnect these hoses and plug them
4. Identify and mark the wiring to the installed DC Pump, then disconnect the wiring
    a. 2 wires (positive & negative) to the buzzer to starter relay coil terminals
    b. Diode wire across starter relay coil terminals
    c. 1 wire for DC Pump Enable (positive trigger) to starter relay coil positive terminal
    d. 24VDC battery supply to starter relay contact
5. Remove installed DC Pump from bracket
6. Fit new Alternative DC Pump to bracket
7. Re-connect hoses. Refer to Figure 2 for pump port locations. Use new fittings on pump ports and where necessary.
8. Re-connect wiring. Refer to Figure 3 for DC Motor and Starter Relay terminals.
    a. Connect the +24VDC battery supply wire to terminal R1
    b. Connect the DC Pump enable wire to terminal A1
    c. Connect the diode and buzzer wiring across terminals A1 and A2. Refer to Figure 4 circuit illustration for polarity of components.
    d. Fit ground wire assembly from terminal M2 to GND threaded connection on DC Pump assembly flange. Refer to Figure 5 for fitment. DC Motor will be grounded through the chassis subframe.
9. Check terminals and fittings are all tightened sufficiently.
10. Re-connect batteries, start truck and setup MEWP for operation
11. Operate the boom lift function and dead-head the cylinder.
    Then set DC Pump relief valve depending on MEWP series:
    - TF MEWPs: set relief valve to 165bar

- TL MEWPs: set relief valve to 215bar

12. Test by enabling the DC Pump and operating main boom functions.
    NOTE: On TL MEWPs, the DC Pump will only activate if the pressure in accumulator is below 120bar.

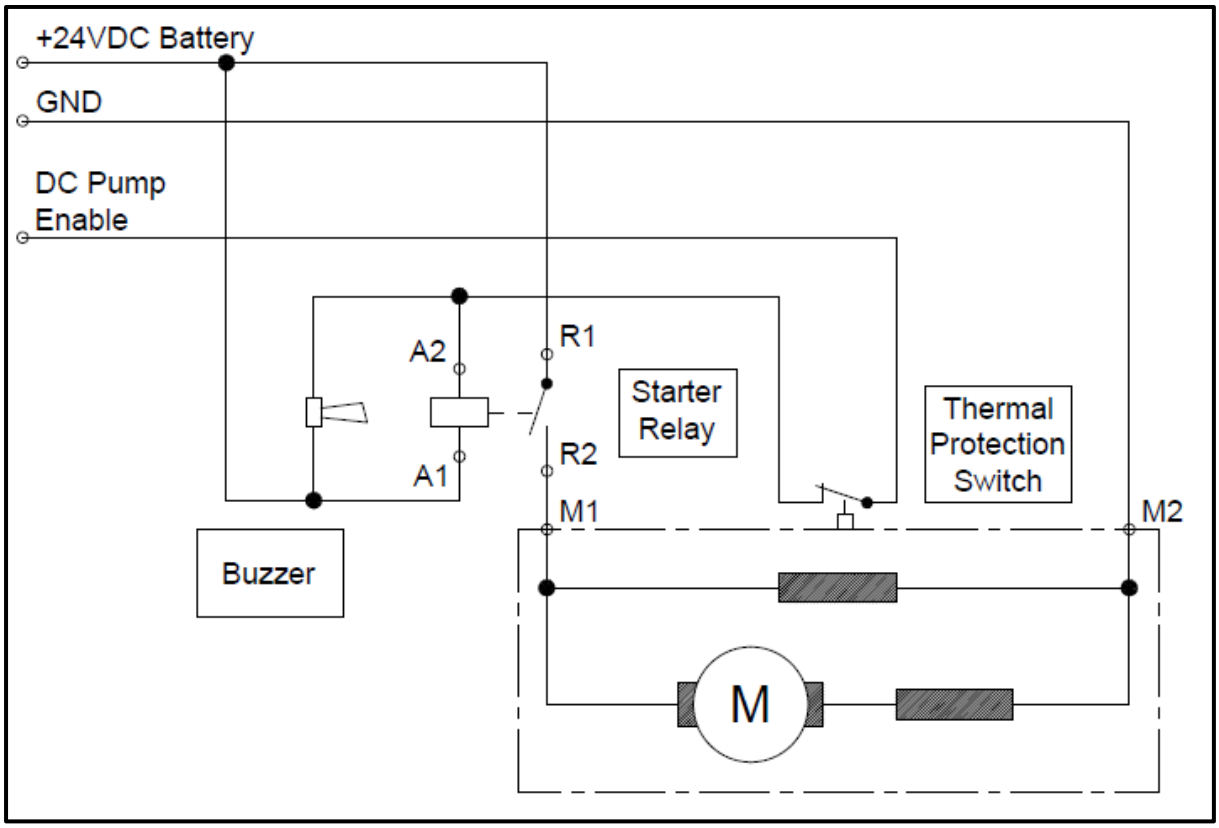

Figure 6: Circuit illustration of Alternative DC Pump wiring (TF Pre-EN280 series MEWPs)

4 Procedure to fit Alternative DC Pump to TF Pre-EN280 MEWPs

1. Set up and position the MEWP to provide the most access to DC Pump
2. Turn the truck key switch off and isolate the batteries
3. Identify and mark the suction and pressure hydraulic hoses to the installed DC Pump, then disconnect these hoses and plug them
4. Identify and mark the wiring to the installed DC Pump, then disconnect the wiring
    a. 2 wires (positive & negative) to the buzzer to starter relay coil terminals
    b. 1 wire for DC Pump Enable (negative trigger) to starter relay coil negative terminal
    c. 24VDC battery supply to starter relay contact
5. Remove installed DC Pump from bracket
6. Fit new Alternative DC Pump to bracket
7. Re-connect hoses. Refer to Figure 2 for pump port locations. Use new fittings on pump ports and where necessary.
8. Re-connect wiring. Refer to Figure 3 only for DC Motor and Starter Relay terminals. *Note required wiring slightly differs to image.*
    a. Connect the +24VDC battery supply wire to terminal R1
    b. Connect the buzzer wiring across terminals A1 and A2. Refer to Figure 6 circuit illustration.

c. Remove the thermal-protection switch wire from M2 and join this wire to the DC Pump Enable wire.
d. Connect terminal A1 to R1
e. Fit ground wire assembly from terminal M2 to GND threaded connection on DC Pump assembly flange. Refer to Figure 5 for fitment. DC Motor will be grounded through the chassis subframe.

9. Check terminals and fittings are all tightened sufficiently.
10. Re-connect batteries, start truck and setup MEWP for operation
11. Operate the boom lift function and dead-head the cylinder.
    Then set DC Pump relief valve to 165bar.
12. Test by enabling the DC Pump and operating main boom functions.

Please contact Redmond Gary if you are unsure on any instruction.