

SPARE PARTS LIST



STRESSOR (HSM70)

MAN-M-O-143_04



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Please note:

Whilst Permaquip Limited has taken every care in preparing this Spare Parts List it is intended as a technical guideline only. Save to the extent that there are statutory rights to the contrary, Permaquip accepts no liability in relation to any use or reliance made of any information in this Spare Parts List.

All information, illustrations and specifications in this Spare Parts List are based on the latest information available at the time of publication. The right is reserved to make changes at any time without notice.

Equipment operators and installers shall be responsible for ensuring that a safe working environment and safe systems of work are in place and in certain circumstances advice and permission from the controlling authority must be sought before any operation, installation or surveying work is carried out.

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1 INTRODUCTION

The Permaquip™ HSM70 Stressor is designed to be used in matching Permaquip OEM pairs to adjust the gap between rail ends for rail stressing, rail welding, repairing rail failures, and for installing insulated joints.

The HSM70 stressor is the most proven and durable Stressor on the market with up to 78 tonnes pull force. The non-slip type clamps enable the gap to be maintained accurately in order to facilitate a stress-free weld.

Numerous accessories such as lifting tongs, side rollers and under rail rollers are available.

The Permaquip™ Power Pack is designed to provide power for the Stressor. Petrol & Electric powered options are available and are the only Permaquip approved power source to be used on the equipment.

The Stressor is painted yellow for high visibility when on track.

Where Stressor kits or parts of have been used with non-OEM approved equipment, then all relevant items should be quarantined, repaired with correct OEM equipment, and re-tested accordingly.

Any modifications or enhancements made by the user or third party which have not been approved by Permaquip are not recommended. Any modifications to the equipment will become the responsibility of the user or third party and the warranty with Permaquip will become null and void. Please see Permaquip's T and Cs on our website for further details.

Prior to using the Stressor & power pack, Permaquip advise all operators and personnel to familiarise themselves with the product. Permaquip offer a wide range of product familiarisation training.

2 ISSUE AND REVISION RECORD

This document will be updated when necessary, by the re-issue of the complete document.

Revision	Description	Date	Revised Page No.	Revised By.
00	Initial release.	14/01/2011	All	C.H.
01	Address updated and general format update.	11/09/2015	All	M.S.
02	Updated formatting and to latest specification.	03/04/2018	All	K.S.
03	Formatting and Permaquip branding updated.	21/03/2022	All	J.F.
04	Updated to include Network Rail approved enhancements.	03/10/2023	All	M.S.

Authorised By:	Martin Sheppard BEng	
	Engineering Manager	

3 SAFE AND CORRECT USE

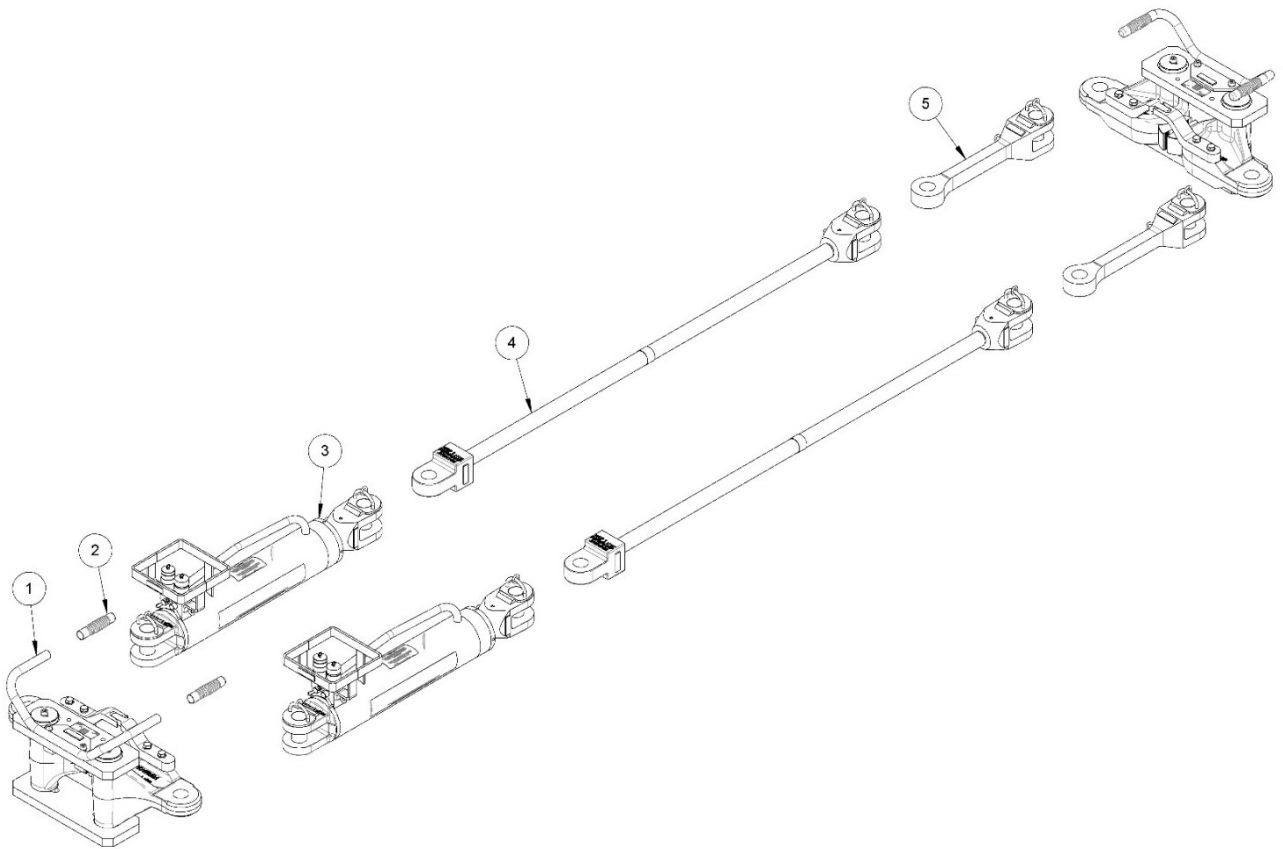
To ensure safe and correct use of the Permaquip™ HSM70 Stressor please refer to the product's User Guide and Service Guide.

Once any maintenance, repair or service operations have been undertaken, ensure that the Maintenance and Test Specification of the product, as defined in the product's User Guide, are followed. Only use OEM spares or replacement part to ensure product safety. All spares unless otherwise stated ("S" Prefix) are supplied untested and unpainted. Testing to be completed after fitting to the Stressor set and painting to be completed after testing. All Stressor testing to be completed by a Permaquip approved service centre.

Where old design Stressor sets are updated or refurbished the symmetrical components must be replaced in pairs to ensure they perform correctly.

4 ASSEMBLY PARTS

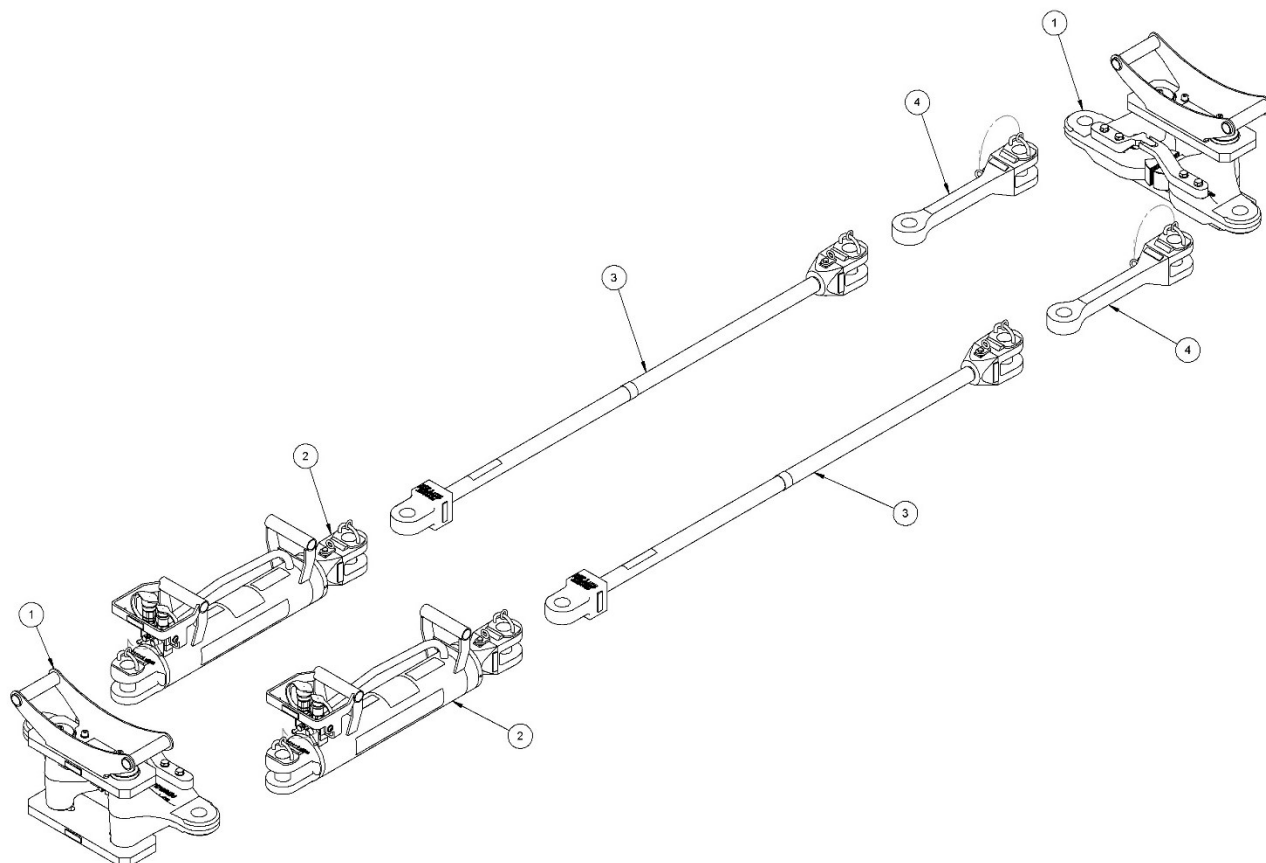
4.1 General Assembly <2023



Item	Part No.	Description	Qty
1	03070	Clamp Assembly (STD)	2
	33079	Clamp Assembly (UIC60)	
2	040991546	Handle Grip Ribbed Red	4
3	05024	HSM70 Ram Assembly (SC)	2
	33293	HSM70 Ram Assembly (FFC)	
4	03071	5' Long Tie Bar	2
	06194	10' Long Tie Bar	
5	05039	Short Tie Bar Assembly	2

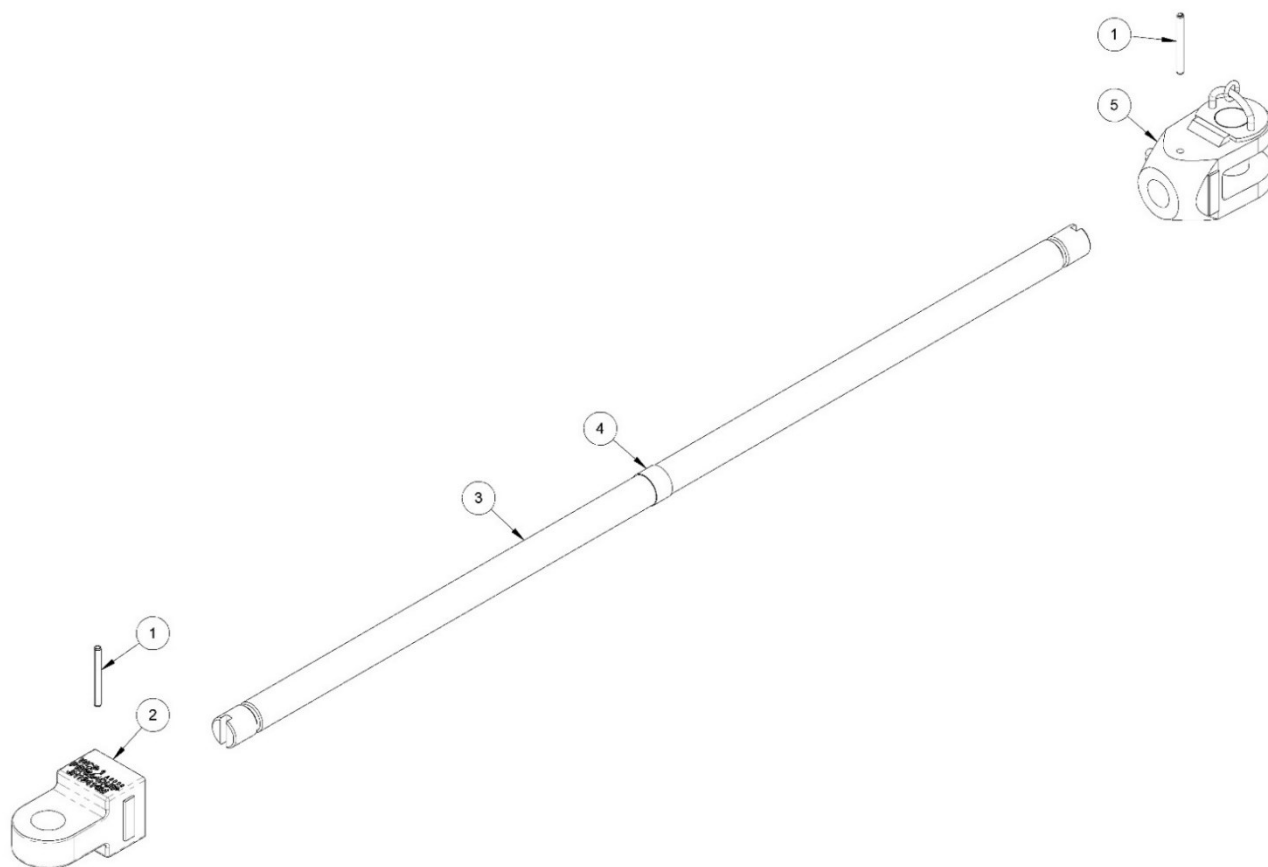
Note: Use Loctite 480 to secure Red Handle Grips (Item 2).

4.2 General Assembly ≥2023



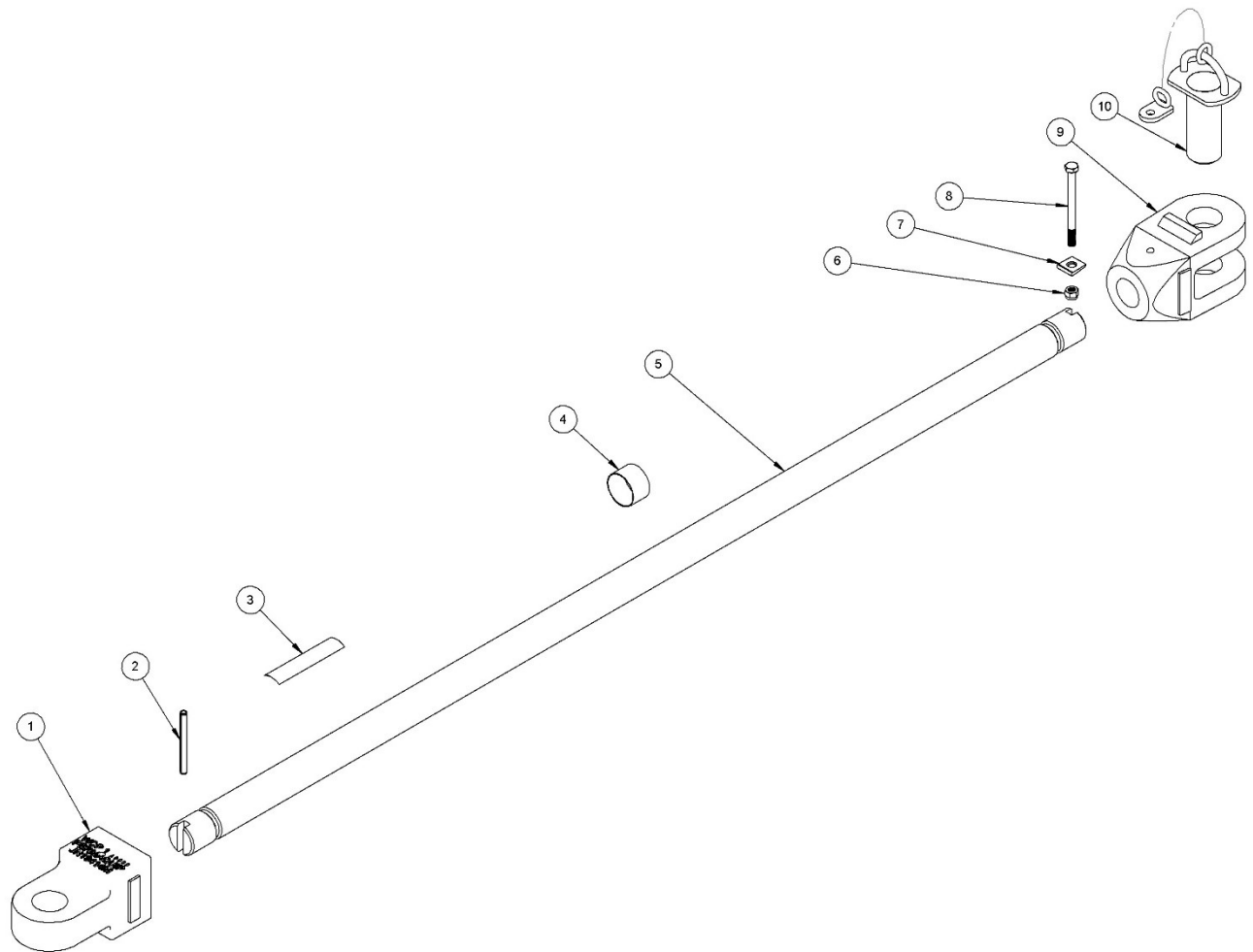
Item	Part No.	Description	Qty
1	S38870	Stressor Clamp STD G/A - Tested & Painted	2
	S38869	Stressor Clamp UIC60 G/A - Tested & Painted	
2	S38868	Stressor Cylinder FFC G/A - Tested & Painted	2
3	S38944	5ft Tie Bar Assembly - Tested & Painted	2
	S38863	10ft Tie Bar Assembly - Tested & Painted	
4	S38873	Short Tie Bar Assembly - Tested & Painted	2

4.3 Long Tie Bar Assembly <2023



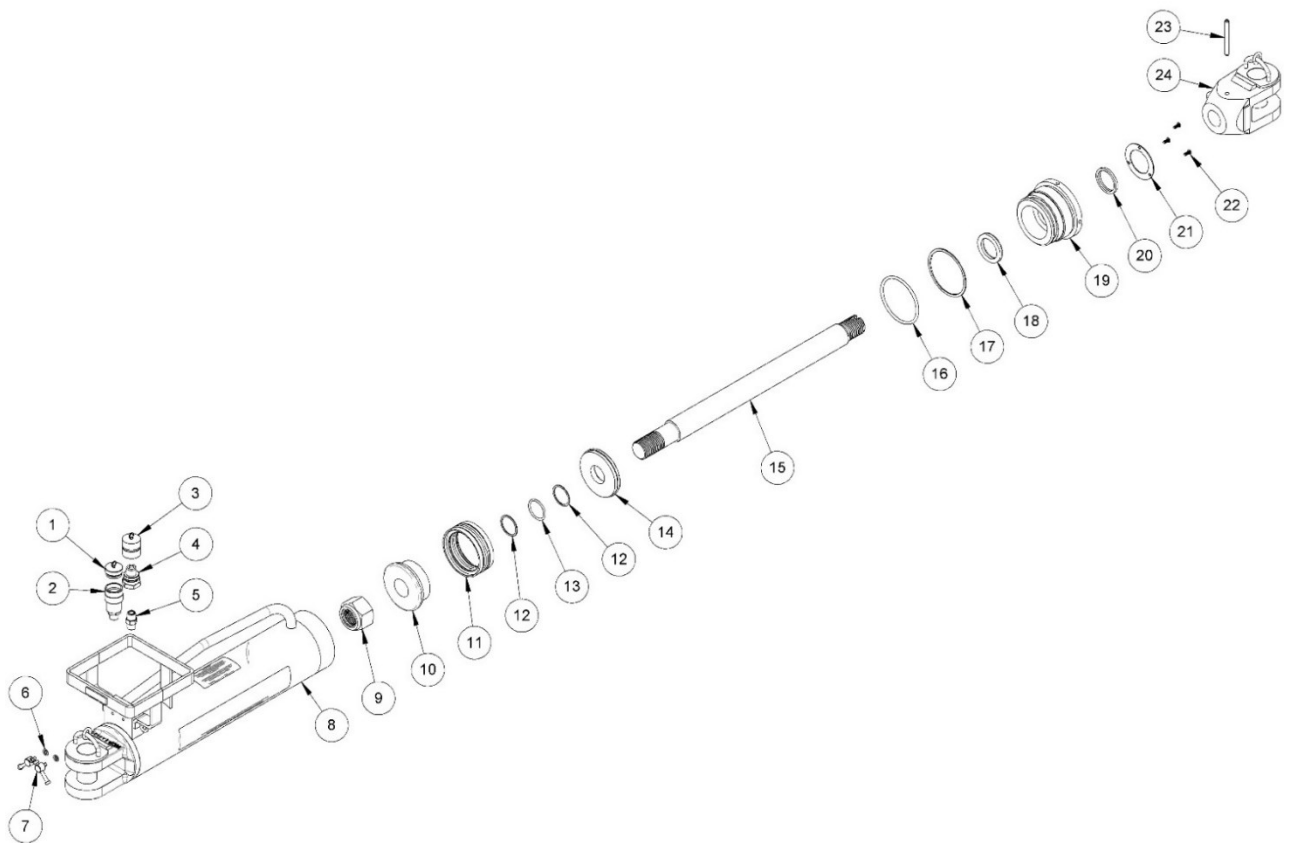
Item	Part No.	Description	Qty
1	040222427	Ø8 x 80 Seloc Pin	2
2	34495	Clevis W/A	1
3	03165	Screwed Tie Bar (5' Long)	1
	06194	Screwed Tie Bar (10' Long)	
4	040850050	Electrical Insulation Tape Black 19mm	1
5	30021	Fork End And Pin W/A	1

4.4 Long Tie Bar Assembly ≥2023



Item	Part No.	Description	Qty
1	34495	Clevis W/A	1
2	040222427	Ø8 x 80 Seloc Pin	1
3	LBL037	22 KG Mass Label	1
4	040850050	Electrical Insulation Tape Black 19mm	1
5	03165	Screwed Tie Bar (5' Long)	1
	06194	Screwed Tie Bar (10' Long)	
6	040420012	M8 Nyloc Nut Zinc (8.0)	1
7	040288000	M8 Square Taper Washer 14%	1
8	040305041	M8 x 100 Hex Bolt Zinc (8.8)	1
9	38943	Fork W/A	1
10	38843	Pin Chain & Tag W/A	1

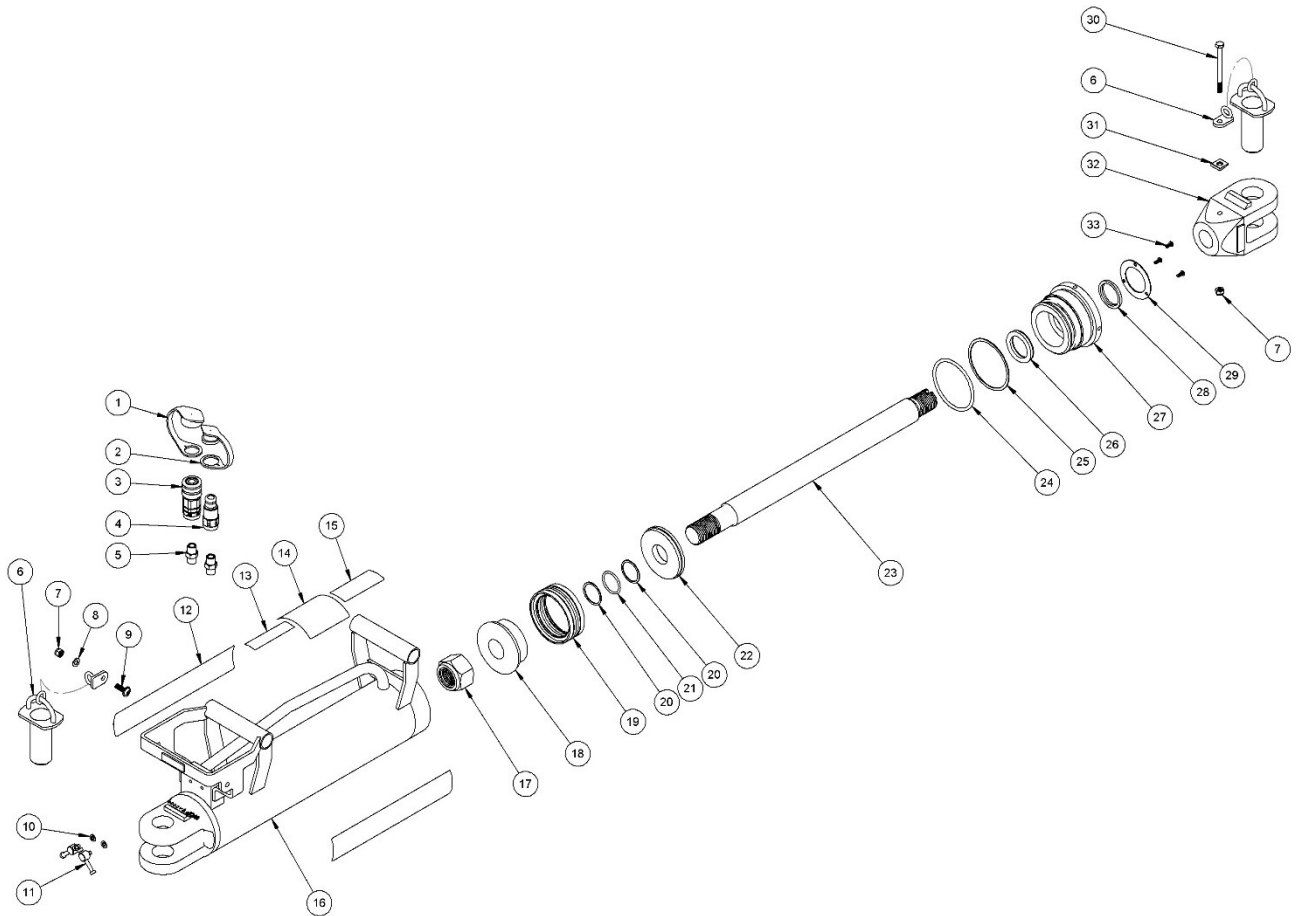
4.5 Cylinder Assembly <2023



Item	Part No.	Description	Qty
1	040990430	Dust Cap - 3/8" Quick Release Coupling (Female) Screw Type	1
	040578098	Female Dust Cap	
2	040990428	3/8" NPT Female Quick Release Coupling	1
	040578095	3/8" NPT Female Flat Faced Coupling	
3	040990429	Dust Cap - 3/8" Quick Release Coupling (Male) Screw Type	1
	040578097	Male Dust Cap	
4	040990427	3/8" NPT Male Quick Release Coupling	1
	040578094	3/8" NPT Male Flat Faced Coupling	
5	040570055	3/8" NPT M - 3/8" NPT M Adapter	1 / 2
6	040130001	1/4" BSW Bonded Seal	2
7	05030	Bleed Screw Assembly	2
8	05025	Cylinder S/A	1
9	05027	Piston Nut	1
10	02819	Piston	1
11	040060509	Ø4" Double Acting Piston Seal	1
12	040180060	BS222 Back-Up Washer	2
13	040010078	O RING BS222	1
14	02820	Piston Seal Retainer	1

15	03176	Piston Rod	1
16	040010148	O RING BS342	1
17	040180010	BS342 Back-Up Washer	1
18	040050022	Rod Piston Seal 2.375" OD, 1.75" ID, 0.437" Wide	1
19	03177	Piston Bearing	1
20	040100324	Ø1.75" x Ø2.125" x 0.218" Wiper Seal	1
21	29764	Retaining Ring	1
22	040320240	M5 x 12 Button Skt Set Screw Zinc (10.9)	3
23	040222427	Ø8 x 80 Seloc Pin	1
24	30021	Fork End And Pin W/A	1

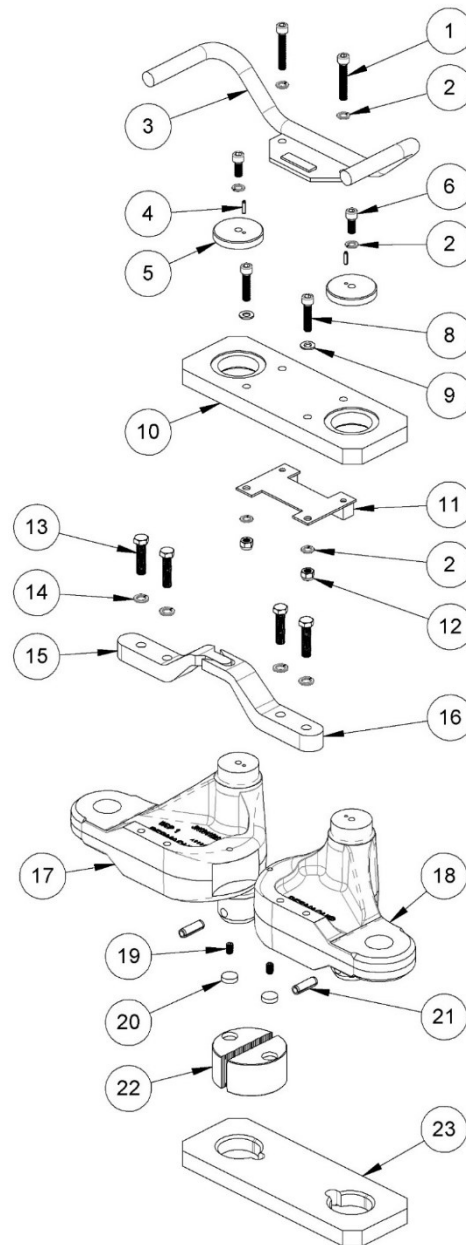
4.6 Cylinder Assembly ≥2023



Item	Part No.	Description	Qty
1	040578098	Female Dust Cap	1
2	040578097	Male Dust Cap	1
3	040578095	3/8" NPT Female Flat Faced Coupling	1
4	040578094	3/8" NPT Male Flat Faced Coupling	1
5	040570055	3/8" NPT M - 3/8" NPT M Adapter	2
6	38843	Pin Chain & Tag W/A	2
7	040420012	M8 Nyloc Nut Zinc (8.0)	2
8	040285104	040285104 M8 Form A Washer Zinc	1
9	040370085	M8 x 25 Button Flange Skt Set Screw (10.9) Zinc	1
10	040130001	1/4" BSW Bonded Seal	2
11	05030	Bleed Screw Assembly	2
12	040991527	Permaquip Label 300 x 50	2
13	LBL036	44 KG Mass Label	1
14	LBL033	Stressor Oil Label	1
15	LBL034	Stressor Limit Label	1
16	05025	Cylinder S/A	1
17	05027	Piston Nut	1

18	02819	Piston	1
19	040060509	Ø4" Double Acting Piston Seal	1
20	040180060	BS222 Back-Up Washer	2
21	040010078	O RING BS222	1
22	02820	Piston Seal Retainer	1
23	03176	Piston Rod	1
24	040010148	O RING BS342	1
25	040180010	BS342 Back-Up Washer	1
26	040050022	Rod Piston Seal 2.375" OD, 1.75" ID, 0.437" Wide	1
27	03177	Piston Bearing	1
28	040100324	Ø1.75" x Ø2.125" x 0.218" Wiper Seal	1
29	29764	Retaining Ring	1
30	040305041	M8 x 100 Hex Bolt Zinc (8.8)	1
31	040288000	M8 Square Taper Washer 14%	1
32	38943	Fork W/A	1
33	040320240	M5 x 12 Button Skt Set Screw Zinc (10.9)	3

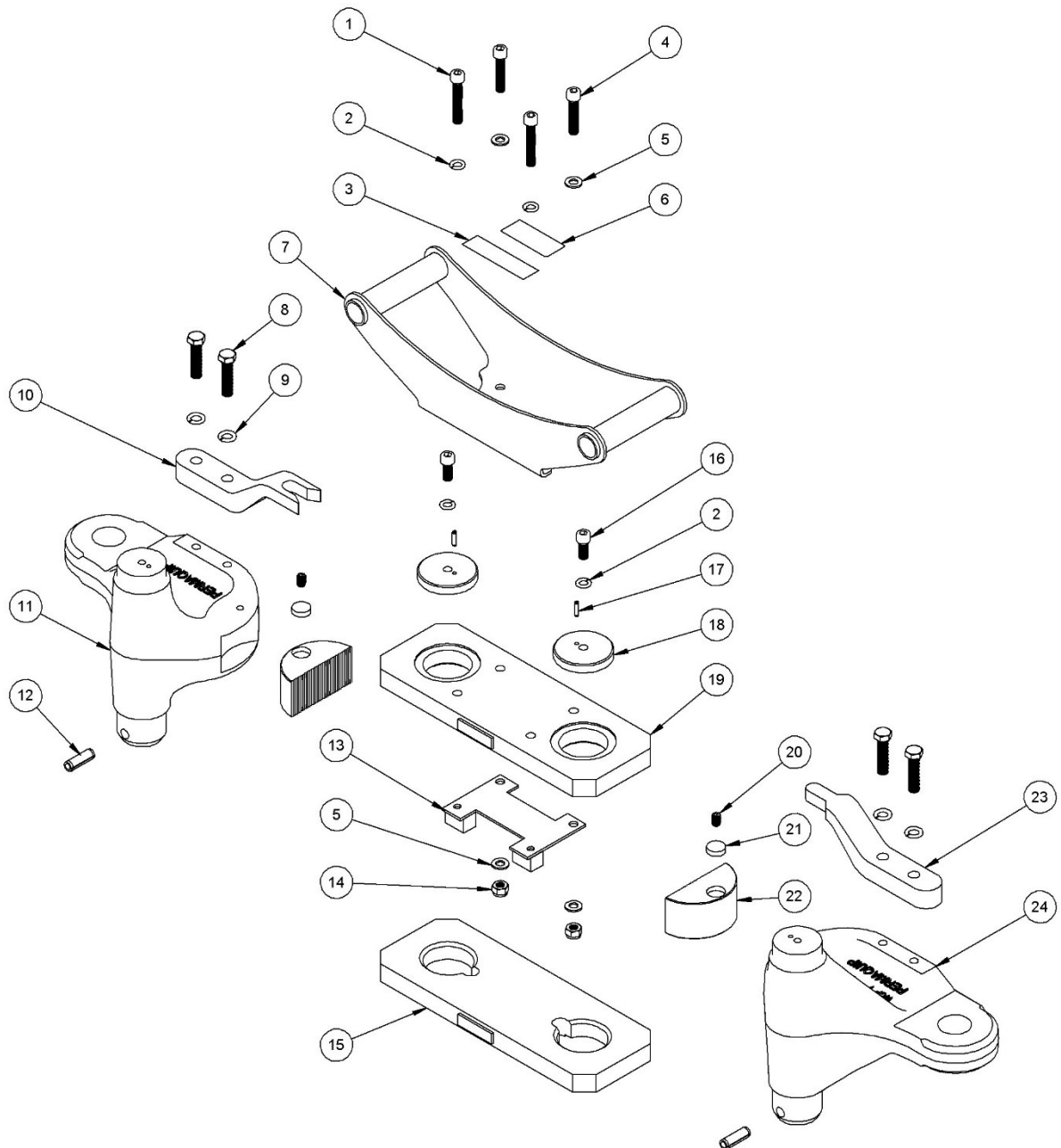
4.7 Clamp Assembly <2023



Item	Part No.	Description	Qty
1	040355084	M10 x 60 Skt Cap Set Screw Zinc (12.9)	2
2	040260008	M10 Spring Washer Zinc	6
3	04537	Handle Assembly	1
4	040221212	Ø3/16" x 3/4" Seloc Pin	2
5	02083	Special Washer	2
6	040355077	M10 x 25 Skt Cap Set Screw Zinc (12.9)	2
8	040355081	M10 x 45 Skt Cap Set Screw Zinc (12.9)	2
9	040285105	M10 Form A Washer Zinc	2
10	02808	Top link	1
11	32766	Rail Guide UIC60	1

	05020	Rail Guide (Standard)	
12	040420013	M10 Nyloc Nut Zinc (8.0)	2
13	040315117	M12 x 50 Hex Set Screw Zinc (8.8)	4
14	040260016	M12 Spring Washer Zinc	4
15	02826	Male Clamp M/C	1
16	02827	Female Clamp M/C	1
17	03163	Lever Arm LH	1
18	03164	Lever Arm RH	1
19	02129	Modified Grub Screw	2
20	02130	Rubber Insert	2
21	040223240	Ø1/2" x 2 1/2" Seloc Pin	2
22	01135	Jaw	2
23	02809	Bottom Link	1

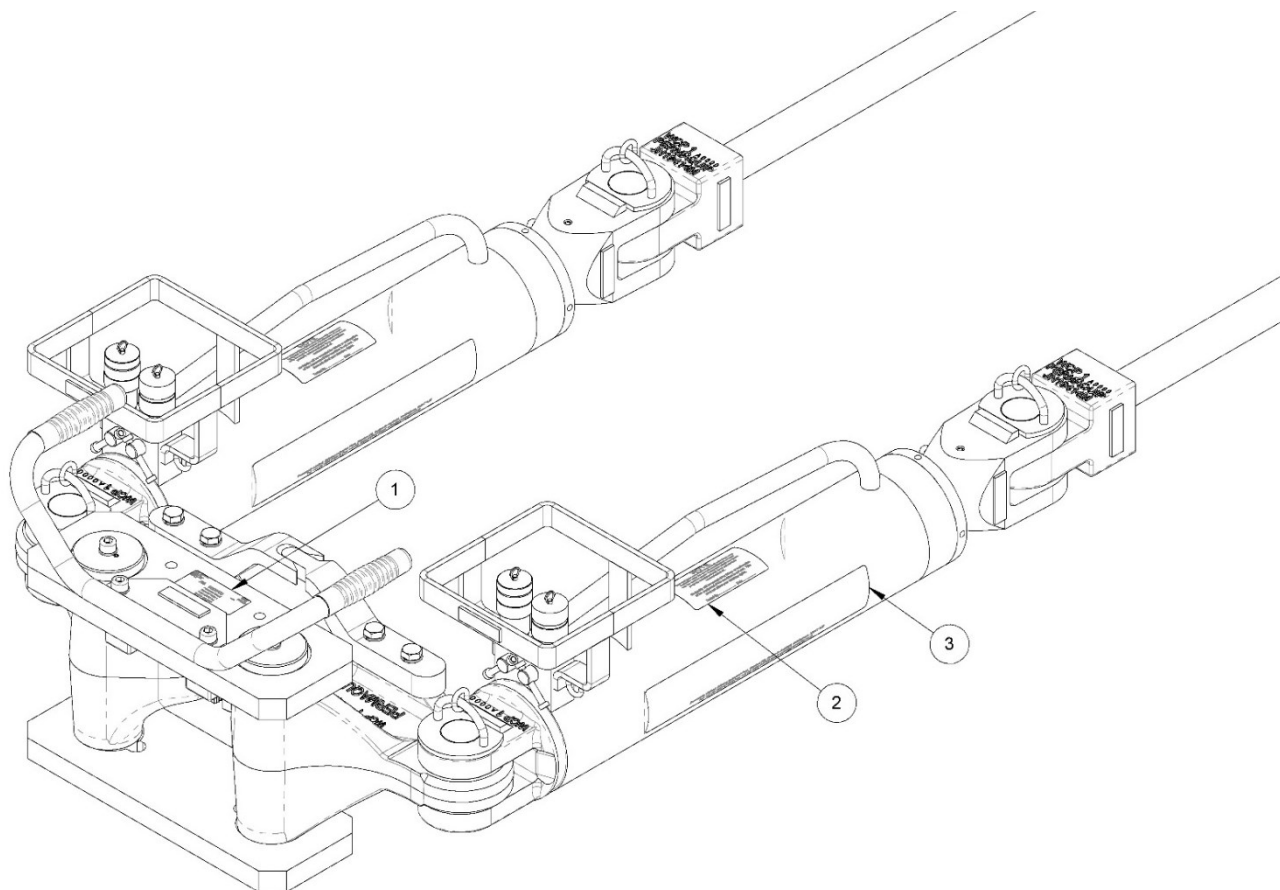
4.8 Clamp Assembly ≥2023



Item	Part No.	Description	Qty
1	040355084	M10 x 60 Skt Cap Set Screw Zinc (12.9)	2
2	040260008	M10 Spring Washer Zinc	4
3	LBL035	64 KG Mass Label	1
4	040355082	M10 x 50 Skt Cap Set Screw Zinc (12.9)	2
5	040285105	M10 Form A Washer Zinc	4
6	LBL001	Serial Number Label	1
7	38839	Clamp Handle W/A	1
8	040315117	M12 x 50 Hex Set Screw Zinc (8.8)	4
9	040260016	M12 Spring Washer Zinc	4
10	02827	Female Clamp M/C	1

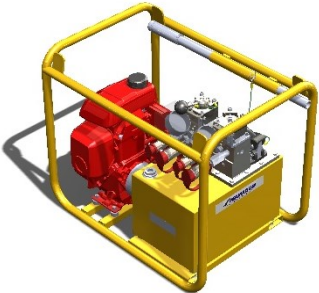
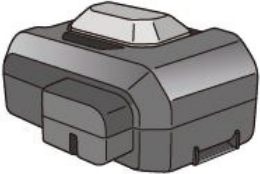
11	38948	Stressor Lever Arm RH W/A	1
12	040223240	Ø1/2" x 2 1/2" Seloc Pin	2
13	32766	Rail Guide UIC60	1
	05020	Rail Guide (Standard)	
14	040420013	M10 Nyloc Nut Zinc (8.0)	2
15	38946	Bottom Link W/A	1
16	040355077	M10 x 25 Skt Cap Set Screw Zinc (12.9)	2
17	040221212	Ø3/16" x 3/4" Seloc Pin	2
18	02083	Special Washer	2
19	38945	Top link W/A	1
20	02129	Modified Grub Screw	2
21	02130	Rubber Insert	2
22	01135	Jaw	2
23	02826	Male Clamp M/C	1
24	38947	Stressor Lever Arm LH W/A	1

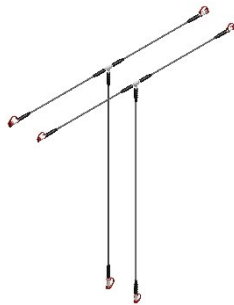
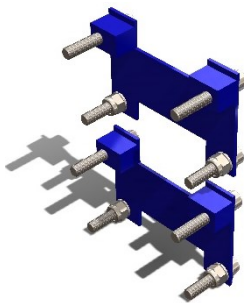
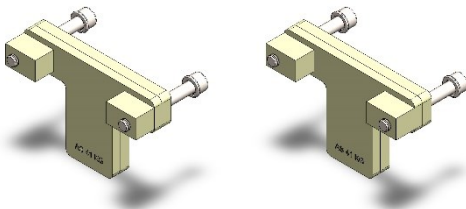
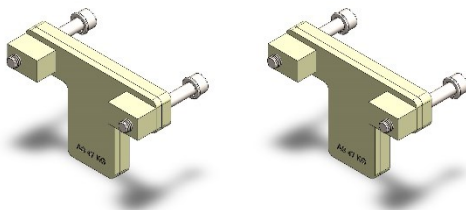
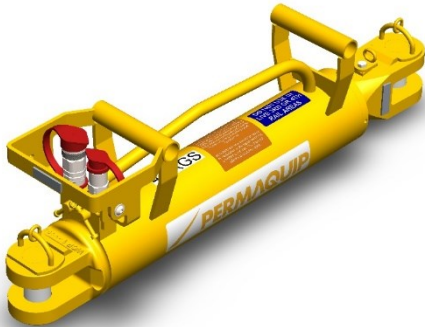
4.9 Labels <2023

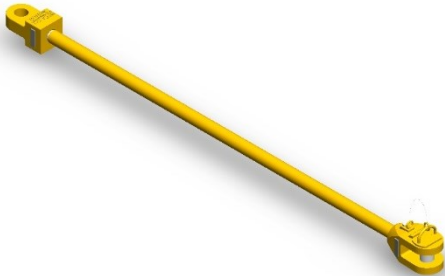
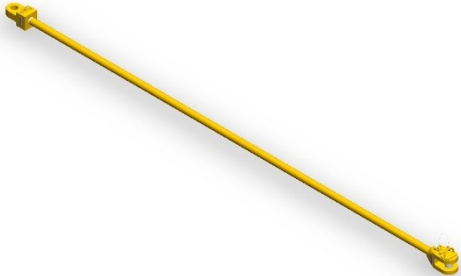


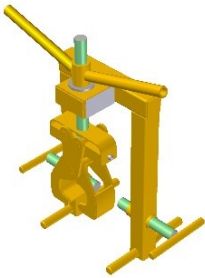
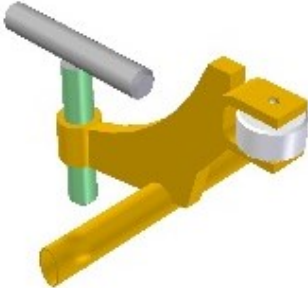
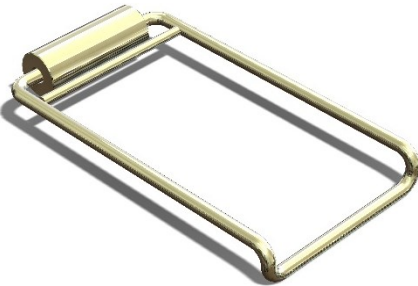
Item	Part No.	Description	Qty
1	32984	Serial Number Label	4
2	33828	Oil Contamination Label	4
3	040991527	Permaquip Label 300 x 50	8

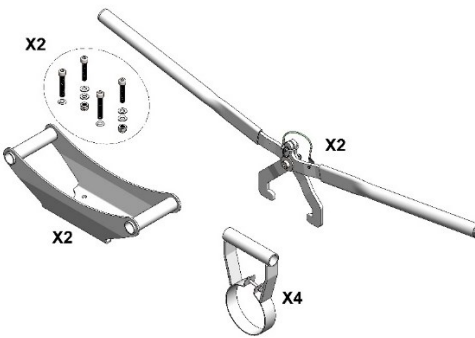
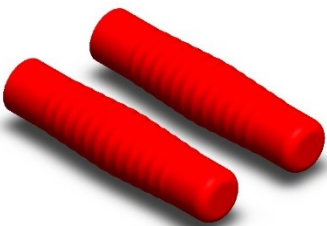
5 MAIN COMPONENTS & ASSEMBLIES

DESCRIPTION	PADS Cat. No.	PART NO
Stressor Half Set FFC UIC60 (UIC60 Rail Guide. Excludes Power Pack and Hoses)		38871
Stressor Half Set FFC STD (Standard Rail Guide. Excludes Power Pack and Hoses)		38872
Stressor Power Pack - Flat Faced Quick Release Couplings		33282
Stressor Electric Power Pack - Flat Faced Quick Release Couplings		38848
Honda DC Battery		040707348
Honda DC Battery Charger		040707349

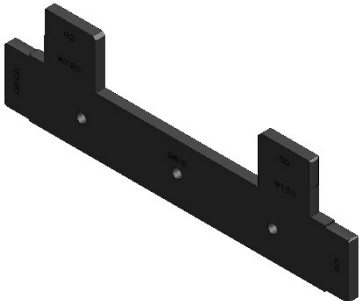
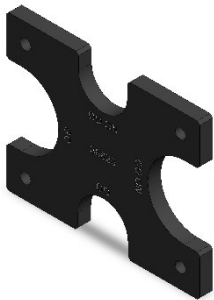
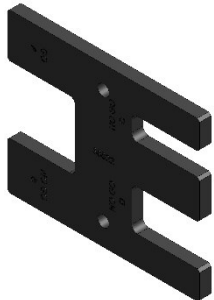
Hose Assembly with Flat-face Quick Release Couplings (1/2 set)			33281
UIC60 Rail Guide Kit			31803
Rail Guide Kit for AS 41kg Rail			38699
Rail Guide Kit for AS 47kg Rail			38700
Ram Seal Kit			05674
Stressor Cylinder FFC G/A - Tested & Painted			S38868

Stressor Clamp STD G/A - Tested & Painted			S38870
Stressor Clamp UIC60 G/A - Tested & Painted			S38869
Short Tie Bar Assembly - Tested & Painted			S38873
5ft Tie Bar Assembly - Tested & Painted			S38944
10ft Tie Bar Assembly - Tested & Painted			S38863

Rail Lifter			28797
Side Support Roller 'E' Plus Clip			33421
Standard Pad Scraper		39/53210	02296
Heavy Duty Pad Scraper		39/53212	03281
Under Rail Roller		39/51338	07160
PAN/SHC Side Support		39/63675	02349

AD Side Support		39/63671	04940
Mills Side Support		39/63676	03073
BJB Side Support		39/63672	26852
Stressor Handle Upgrade Kit			38950
Maintenance Kit for Stressor Red Handles (Including adhesive, emery cloth and wipes)			38949
Stressor Lifting/Carrying Tongs			38854

C Spanner Assembly (For Replacement of Ram Seals)			05058
Pressure Relief Tools (Screw type)			34414
Pressure Relief Tools (Flat faced)			35211
Hydraulic Oil 46 - 0.9L			041000243
Hydraulic Oil 46 - 3.8L			041000223
Hydraulic Oil 46 - 9.5L			041000244

Hydraulic Oil 46 - 208L			041000245
Stressor Fork & Clevis Hole Gauge			38818
Stressor Link Plate Gauge			38819
Stressor Pins Gauge			38820
Stressor Fork & Clevis Gauge			38822

Stressor Gauge Case + Foam Inlays			38978
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Permaquip Ltd offer a familiarisation service – please contact us for further details.

For spare parts please contact Permaquip Ltd for further information and support.

Our contact details are shown on the front of this Service Guide.

In order to avoid delay and to have your orders fulfilled promptly,

Please telephone, e-mail; sales@permaquip.co.uk or write giving the following information:

- 1. Company name.**
- 2. Contact details.**
- 3. Invoicing and delivery details.**
- 4. Purchase order number.**
- 5. Method of delivery.**
- 6. Part number, description and quantity for each item.**