

Dyna-Star® and Power-Star™ Pumps For Oil Applications

Features and Benefits

- Ties into existing hydraulic systems on mobile equipment
- Operates quieter than air driven pumps and doesn't require mufflers
- Eliminates the need for air compressors
- Provides self-lubrication for long life and reliability
- Hydraulic changeover is faster with less pulsation allowing smoother output pressure, even with long plumbing runs

Typical Applications

- Low pressure, high volume oil transfer
- High pressure, high volume grease dispense
- Heavy-duty dealerships
- Fleet service facilities
- Service shops
- In-plant
- Lube trucks
- Mining

Typical Fluids Handled

- Petroleum- and synthetic-based oils
- Grease up to NLGI #2



Ordering Information for Oil Packages

Oil Applications	Power-Star, 1:1	Dyna-Star®, 1:1	Dyna-Star, 1:1	Dyna-Star, 1/4:1	Stainless Steel Dyna-Star, 1:1
Drum Size	Universal	Universal	55 gal (200 l) Bung- or Cover-Mounted	Universal	Universal
Pump Number	236754	224741	224742	236753	237653
Max. Input Pressure	1500 psi (102 bar)	1500 psi (102 bar)	1500 psi (102 bar)	1500 psi (102 bar)	1000 psi (70 bar)
Max. Fluid Input Volume	12 gpm (45.4 lpm)	3 gpm (11.4 lpm)	3 gpm (11.4 lpm)	3 gpm (11.4 lpm)	3 gpm (11.4 lpm)
Max. Output Flow Rate	12 gpm (45.4 lpm)	3 gpm (11.4 lpm)	3 gpm (11.4 lpm)	10 gpm (37.9 lpm)	3 gpm (11.4 lpm)
Maximum CPM	60	60	60	60	60
Max. Fluid Output Pressure	1500 psi (102 bar)	1500 psi (102 bar)	1500 psi (102 bar)	375 psi (25.1 bar)	1500 psi (102 bar)
Hydraulic Supply Inlet	3/4 npt	3/8 npt	3/8 npt	3/8 npt	3/8 npt(f)
Hydraulic Return Outlet	1-1/4 npt	3/4 npt	3/4 npt	3/4 npt	3/4 npt(f)
Fluid Outlet	1/2 npt	1/2 npt	1/2 npt	1/2 npt	1/2 npt(f)
Fluid Inlet	1-1/2 npt	1-1/2 npt	1-1/2 npt	1-1/2 npt	1-1/2 npt
Max. Incoming Fluid Temp.	130° F (54° C)	130° F (54° C)	130° F (54° C)	130° F (54° C)	130° F (54° C)
Instruction Manual	308391	308155	308155	308390	308155
Applications	Bulk oil transfer	Oil dispensing	Oil dispensing	Bulk oil transfer	Anti-freeze dispensing

Lubrication & Fluid Handling Solutions

Dyna-Star® and Viscount® II Pumps For Oil and Grease Applications

Ordering Information for Grease Packages

Grease Applications	Dyna-Star, 5:1	Dyna-Star, 10:1	Viscount II, 2.4:1
Part No. – Drum Size	224912 – 35 lb (16 kg) 224751 – 120 lb (55 kg) 224752 – 400 lb (180 kg)	247540 – 60 lb (27 kg) 247443 – 120 lb (55 kg) 247450 – 400 lb (180 kg)	222902 – 400 lb (180 kg)
Max. Input Pressure	1500 psi (102 bar)	600 psi (41 bar)	1500 psi (102 bar)
Max. Hydraulic Fluid Input Vol.	3 gpm (11.4 lpm)	3 gpm (11.4 lpm)	12 gpm (45.4 lpm)
Max Grease Flow Output Rate	4 lb/min (1.8 kg)	1.1 lb/min (0.5 kg)	54 lb/min (20.4 kg)
Maximum CPM	60	60	60
Max. Fluid Output Pressure	7500 psi (517 bar)	7500 psi (517 bar)	2300 psi (159 bar)
Hydraulic Supply Inlet	3/8 npt	3/4-16 in. JIC (37° Flare)	3/4 npt
Hydraulic Return Outlet	3/4 npt	3/4 npt	1 npt
Fluid Outlet	1/2 npt	1/2 npt	1-1/2 npt
Maximum Incoming Hydraulic Fluid Temp.	130° F (54° C)	200° F (93° C)	130° F (54° C)
Instruction Manual	308156	312350	308149

Hydraulic Fluid Controls (Required for each pump)

236864	Dyna-Star Fluid Controls [1500 psi (102 bar); 3 gpm (11.4 lpm)]. Includes manifold with pressure-reducing valve, flow control valve, pressure gauge, shut-off ball valves and 3 ft (0.9 m) supply and return hoses. Instruction manual 308395 .
236865	Power-Star and Viscount II Fluid Controls [1500 psi (102 bar); 12 gpm (45.4 lpm)]. Includes manifold with pressure-reducing valve, flow control valve, pressure gauge, shut-off ball valves and 3 ft (0.9 m) supply and return hoses. Instruction manual 308395 .
237904	1:1 Dyna-Star Thermal Relief Valve, 1600 psi (110 bar)
235998	Mini Fire-Ball 225, 3:1 thermal relief valve rated to 600 psi (41 bar)

Accessories

Follower Plates		Covers		Tie-Down Covers	
224916	Follower plate for 35 lb (16 kg)	224915	Cover for 35 lb (16 kg)	222060*	Tie-Down Cover for 120 lb (55 kg)
223700	Follower plate for 120 lb (55 kg)	204574	Cover for 120 lb (55 kg)	207366**	Tie-Down Cover for 400 lb (180 kg)
223701	Follower plate for 400 lb (180 kg)	200326	Cover for 400 lb (180 kg)	<i>*Use with hold-down kit 222061 **Use with hold-down kit 207361</i>	



222902



236754



224741



247540

Lubrication & Fluid Handling Solutions

Off-Road Mobile Lubrication Systems

Dyna-Star® 10:1 High Ratio Hydraulically-Powered Lubrication Pump

Features and Benefits

- Achieve full pressure performance by safely tapping low pressure hydraulics
- Pre-packaged modules ready-to-work with both injector and divider valve systems
- Multiple pump and accessory options for use with refinery drum and custom tank installations
- Self-lubricating vertical design for long life and reliable operation in high vibration environments
- Ultra-quiet hydraulic motor—no need for add-on mufflers
- High efficiency motor design uses less hydraulic oil

Typical Applications

- Heavy-duty construction and mining equipment
- Any application requiring durable, high-performing grease delivery

Typical Fluids Handled

- NLGI #2 grade grease

Technical Specifications

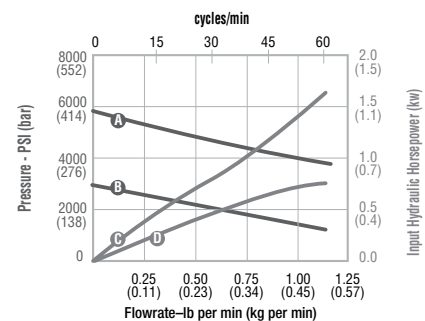
Part Number	247540	247443	247450
Drum Size	60 lb (27 kg)	120 lb (55 kg)	400 lb (180 kg)
Overall Pump Length	33.9 in (861 mm)	41.5 in (1054 mm)	48.5 in (1232 mm)
Pump Lower Length	19.75 in (501 mm)	26.75 in (679 mm)	33.75 in (857 mm)
Maximum Hydraulic Input Pressure	600 psi (41 bar)	600 psi (41 bar)	600 psi (41 bar)
Maximum Hydraulic Fluid Input Volume	3 gpm (11.4 lpm)	3 gpm (11.4 lpm)	3 gpm (11.4 lpm)
Maximum Flow Output Rate	1.1 lb/min. (0.5 kg/min.)	1.1 lb/min. (0.5 kg/min.)	1.1 lb/min. (0.5 kg/min.)
Maximum CPM	60	60	60
Maximum Fluid Output Pressure	7500 psi (517 bar)	7500 psi (517 bar)	7500 psi (517 bar)
Hydraulic Supply Inlet	3/4"–16 JIC (37° Flare)	3/4"–16 JIC (37° Flare)	3/4"–16 JIC (37° Flare)
Hydraulic Return Outlet	3/4" npt	3/4" npt	3/4" npt
Fluid Outlet	1/2" npt	1/2" npt	1/2" npt
Maximum Incoming Hydraulic Fluid Temp.	200°F (93°C)	200°F (93°C)	200°F (93°C)
312350	Manual for 247540, 247443, 247450		

Ordering Information

247540	Dyna-Star 10:1, 60 lb (27 kg) Pump
247443	Dyna-Star 10:1, 120 lb (55 kg) Pump
247450	Dyna-Star 10:1, 400 lb (180 kg) Pump



Pump Performance



- Ⓐ 600 psi hydraulic inlet pressure
- Ⓑ 300 psi hydraulic inlet pressure
- Ⓒ Hp (600 psi hydraulic input)
- Ⓓ Hp (300 psi hydraulic input)

Test Fluid: NLGI #1 grade grease

Off-Road Mobile Lubrication Systems

Dyna-Star® 10:1, 5:1 and Fire-Ball® 300 50:1

Ordering Information

Dyna-Star 10:1 Modules And Kits	
247574	Dyna-Star 10:1 60 lb (27 kg) Pump Module - Injector - Overall height 35.15 in (842mm). Includes pump (247540), reservoir assembly (247575), hydraulic control assembly (247538) and vent valve assembly (243170) fully assembled
247706	Dyna-Star 10:1 60 lb (27 kg) Pump Kit - Divider Valve (DV) - Overall height 35.15 in (842mm). Includes pump (247540), reservoir assembly (247575) and hydraulic control assembly (247538) not assembled
247444	Dyna-Star 10:1 90 lb (41 kg) Pump Module - Injector - Overall height 42.75 in (1086 mm). Includes pump (247443), reservoir assembly (241486), hydraulic control assembly (247538) and vent valve assembly (243170) fully assembled
247707	Dyna-Star 10:1 90 lb (41 kg) Pump Kit - DV - Overall height 42.75 in (1086 mm). Includes pump (247443), reservoir assembly (241486) and hydraulic control assembly (247538) not assembled
247902	Pressure relief kit for 247706 and 247707
312349	Manual for 247574, 247706, 247444, 247707

Dyna-Star 10:1 Refinery Drum And Custom Tank Applications								
Description	Refinery Drums		Custom Tank Applications					
Weight lbs (kg)	120 (55)	400 (180)	60 (27)	60 (27)	120 (55)	120 (55)	400 (180)	400 (180)
Divider Valve (DV) or Injector Based	DV	DV	Injector	DV	Injector	DV	Injector	DV
Pump	247443	247450	247540	247540	247443	247443	247450	247450
Hydraulic Control (1)	247705	247705	247538	247538	247538	247538	247538	247538
Vent Valve			243170		243170		243170	
Cover	247703	247704						
Pump Gasket	15M442	15M442	15M442	15M442	15M442	15M442	15M442	15M442
Custom Tank Kit (2)			247970		247456		247457	

(1) Hydraulic control assembly (247705) includes longer hoses to enable remote mounting.

(2) Kits include pump (24750, 247443 or 247450), hydraulic control assembly (247538), vent valve (243170) and pump gasket (15M442).

Dyna-Star 10:1 Module Accessories	
243170	Vent valve
247538	Hydraulic control module
247700	Follower plate for 60 lb (27 kg) and 90 lb (41 kg) modules
244023	Level indicator for 60 lb (27 kg) and 90 lb (41 kg) modules*
24B591	GLC 4400, 12/24 VDC controller
115124	Pressure switch
247575	Reservoir - 60 lb
241486	Reservoir - 90 lb

Fireball 300 And Dyna-Star 5:1 Modules & Accessories	
241573	Fireball 300, 50:1 90 lb (41 kg) Pump Module. Includes pump (239887), reservoir assembly (241486) and vent valve assembly (241572)
241485	Follower plate (fits 241573)
243159	Dyna-Star 5:1 90 lb (41 kg) Pump Module. Includes pump (224751), reservoir assembly (241486), hydraulic control assembly (243501) and vent valve assembly (243170)
243191	Follower plate (fits 243159)



247574



Barrel and Drum Pumps

Electro-Hydraulic Barrel Pumps

Electric Pumps

Features and Benefits

Heavy-duty drum pump requires no air supply, just plug it in and you're ready to go. Installs on a 400 pound grease or 55 gallon drum, eliminating the need to transfer lubricants. Sealed hydraulic power circuit ensures long trouble-free operation.

Typical Applications

- Steel mills, pulp and paper, cement plants and other heavy-duty applications

Typical Fluids Handled

- Oil and grease up to NLGI #2

Technical Specifications

Output per Minute

H-430.....	6 in ³ (98 cm ³)
H-420.....	11 in ³ (108 cm ³)
H-410.....	22 in ³ (360 cm ³)
H-411.....	38 in ³ (623 cm ³)
1/2 HP Motor	115/230 VAC, 1 phase or 230/460 VAC, 3 phase
Pressure	3,500 psi (241 bar)
Reservoir.....	400 pound for grease or 55 gallon for oil

Ordering Information

Electro-Hydraulic Barrel Pumps w/out Motor	
564259	H-420
564260	H-430
564261	H-411
562863	H-410
564262	H-430 w/out Pressure Switch
Power Units	
564391	H-420
564392	H-430
564390	H-411
563406	H-410
Motors	
557271	1/2 HP, 115/230 Vac, 1 phase, 60 Hz
557270	1/2 HP, 230/460 Vac, 3 phase, 60 Hz
Spare Parts and Kits	
563402	H-400 Pump Only
563922	Pump Repair kit
563404	Pressure Switch
557352	Pressure Gauge
557376	Outlet Strainer

