

## PRODUCT LINE

### Fishing & Intervention | Power Swivels

## PRODUCT

### 85-Ton Power Swivel



#### OVERVIEW

The hydraulic motor-driven, Logan 85-Ton Power Swivel provides smooth, shock-free torque. It is rated to support tensile pipe loads of 85 tons at zero rpm and 45 tons of dynamic load at 100 rpm. The compact, swivel-head design weighs only 1,163 lbs and fits into most drilling or workover masts.

The design incorporates a reliable, custom drive train with hardened steel gears. For most applications, the Logan 85-Ton Power Swivel eliminates the use of dangerous spinning chains, tongs, and kelly spinners. The Power Swivel facilitates drilling with longer drill string lengths before the rig must be shut down to add pipe. Stops and start-ups are thereby reduced — improving rig efficiency and reducing wear on the pump, drawworks, and other rig equipment.

The Logan 85-Ton Power swivel uses a closed loop hydraulic system with a variable displacement, bi-directional pump, and air or electric remote controls. Speed control is continuously variable over the entire operating range. Pressure compensating-type torque control over-rides the speed control to maintain maximum torque. The power unit's torque limits can be set, thereby eliminating the potential danger of twist-offs or swollen boxes in the drill string. An integral rotary swivel bearing, floating washpipe assembly, and gooseneck connection eliminates the need for a separate rotary swivel.

A 2-1/2" bore gooseneck and washpipe assembly allows circulation through the 2" I.D. stem while rotating or in static mode. An access plug allows wireline to be run through the unit.

#### Features include:

- Smooth, shock-free torque reduces drill string damage
- Fits most drilling and work over masts
- Allows use of longer drill string lengths
- Power unit torque limits can be set
- Separate rotary swivel is unnecessary
- Choice of diesel engines
- Increased environmental safety features on skids and trailers
- Easy to service

#### Extra cost options include:

- Air- or hydro-start engine
- Special hydraulic motor
- Lifting frame
- Electric or hydraulic loading winch
- Motor brake
- Control can be operated remotely or from the power unit
- Cold weather package

The complete Logan 85-Ton Power Swivel package includes an elevator-type bail or hook-link adapters; a unitized washpipe packing box assembly; a fixed displacement, piston-type, hydraulic motor rated at 5,000 psi; a torque rein assembly; safety cable; and 1-inch quick disconnects. The components are available either trailer- or skid-mounted with powered hose reels to form a rugged unit. A swivel carrying stand is standard.

**CAUTION: Refer to the installation procedure outlined on page 4 of the instruction manual before installing the Logan 85-Ton Power Swivel on a rig.**

**Failure to properly install the Power Swivel can result in injury to the operator and/or rig floor personnel.**

#### USES

The Logan 85-Ton Power Swivel is ideally suited for use in fishing and workover operations — such as the internal or external cutting of casing, tubing, or drill pipe; drilling out plugs, packers, or cement; milling operations; or scraping casing — whenever shock-free, controlled torque is essential to eliminating the potential danger of twist-offs or damage to cutting tools.

The compact, lightweight swivel-head design also makes it extremely effective for light to medium drilling applications including water wells, pilings for piers and foundations, in addition to oil and gas wells. Suspending the swivel from a boom or crane eliminates a great deal of set-up time or shifts to additional locations.

The Logan 85-Ton Power Swivel is also ideal for coring operations. Any length of core may be taken. Accurate and smooth torque ensures against damage to core tools or strings.

#### CONSTRUCTION

##### Power Swivel Assembly

The Logan 85-Ton Power Swivel is powered by a fixed displacement, piston-type, hydraulic motor rated at 5,000 psi.

The motor is mounted on the underside of the swivel and is protected by a steel frame.

Two high pressure hydraulic hoses and the motor drain hose exit from the bottom of the assembly. The high-pressure hydraulic hoses connect to the motor with quick disconnects. The motor drain hose is fitted with a self-sealing quick disconnect coupling.

The one-piece gooseneck is constructed of cast steel. A 2-inch I.D. NPT access plug located in the top allows passage of wireline and small tools through the swivel for downhole operations. The gooseneck and swivel packing are hydrostatically tested and rated at 5,000 psi circulating pressure.

The floating washpipe assembly and packing are self-aligning. Friction bearing surfaces of the washpipe (areas that contact the packing) are hard-surfaced for wear-resistance.

The elevator bail is machined from forged, heat-treated alloy steel for maximum strength. The bail, bail pins, and body are manufactured to API guidelines. The design incorporates a reliable, custom drive train with hardened steel gears consisting of a motor drive gear, reduction drive gear, an intermediate gear, and the main drive gear. Roller bearings keep the gears in close alignment.

A magnetic drain plug is located on the lower cover plate of the swivel assembly. A tell-tale hole in the lower plate indicates hydraulic oil leakage past the motor shaft seal or lubricating gear oil past the input pinion shaft. A filler/relief plug is located on the upper cover plate. The gear housing is equipped with an oil level sight glass so the operator may check oil level with a quick glance.

To protect the main stem oil seal from dirt, an excluder seal is installed below the packing nut.

## PRODUCT LINE

### Fishing & Intervention | Power Swivels

## PRODUCT

### 85-Ton Power Swivel



#### Control Units

Air controls consist of an air compressor and tank, an air filter/regulator/lubricator unit, and a pedestal mounted control panel with extra lines fitted with quick disconnect couplers. A lever-operated air valve controls the engine speed. Another single-lever air valve controls the direction and speed of the Power Swivel. A torque gauge, calibrated in ft.-lbs., indicates torque.

Control assemblies for the Logan 85-Ton Power Swivel are either air or electric. They can be operated remotely (extra cost option) for operator convenience and safety, or from the power unit. Remote control assemblies are pedestal mounted. The control assembly is lightweight, and the pedestal base is removable for easy storage on the trailer or skid. A new wireless remote with an operating range of 150 feet is also available.

The electric control panel consists of a rotary switch for controlling swivel direction and speed, an engine rpm control switch, a digital torque gauge, and an engine kill switch. An emergency kill switch is available for hazardous locations.

Torque limits can be easily and accurately set on both air and electric control units. A torque control unit mounted on the fuel tank can be preset to the desired torque limit with the turn of a knob. Torque will be indicated on the control panel in ft.-lbs.

#### Basic Power System

The Logan 85-Ton Power Swivel is equipped with a diesel engine to provide power. The engine is sized to provide sufficient horsepower to operate the swivel to full torque and rpm limits. Control systems may be either air or electric. On units equipped with air control systems, an air compressor, a three-gallon receiver tank, and an air filter-lubricator are also provided.

#### Hydraulic System

The hydraulic system includes a direct driven, variable displacement hydraulic pump that is mounted directly on the engine flywheel housing. All piping, valves, fittings, reservoirs, and other components required to complete the system are included. The hydraulic system is designed and rated at 5,000 psi working pressure.

The hydraulic reservoir is designed to dissipate heat and is adequately sized to disperse foam that may be generated during operation. A suction strainer and high-pressure filters provide continuous filtration of the hydraulic fluid. Visual registers on the tank return filter and high-pressure filters indicate when these elements need to be replaced.

Hydraulic hoses are reel-mounted on the power unit. They are connected to the power swivel hydraulic motor with swivel joints and quick disconnects.

A swivel carrying rack allows the swivel to be loaded and unloaded without breaking the hose connections.

#### Power Unit

The compact, easily transportable Power Swivel units may be mounted on a trailer, skid, or containerized. All units consist of an engine with a hydraulic pump, hydraulic piping, a hydraulic fluid reservoir, a hose reel assembly and hoses necessary for supplying hydraulic power to the power swivel motor. Brackets to hold and transport the swivel and the control panel are included.

#### Trailer-Mounted Unit

The compact, tandem axle trailer units meet all ICC regulations and are equipped with heavy-duty springs and electric brakes. The trailer can be supplied as a gooseneck or bumper pull trailer. Diamond-patterned deck plate provides solid, skid resistant flooring over the all-welded, steel frame.

#### Skid-Mounted Unit

Skid units are rugged and made of heavy-duty structural tubing with welded construction. Both ends are rounded for easy skidding. Ends are fitted with an integral pipe that may be used to attach boom lines or hoist slings.

Main runners, running the length of the skid, are strengthened by cross-members for additional rigidity. The entire frame is covered with diamond-patterned deck plate to provide a solid, skid resistant floor.

To meet environmental regulations, both trailer and skid-mounted units are equipped with an integral containment lip to contain fluid spills.

#### Containerized Unit

Containerized units are built into a 20-foot ocean container. The containers are equipped with two bi-fold doors on one side, and double doors in the rear, to allow complete access. A louvered vent, which has an adjustable cover that can be sealed off for storage or transport, is installed on the front. The floor is diamond tread steel plate.

#### Operation General Rules

Logan Oil Tools recommends the following rules be observed when operating the Power Swivel. These operational rules apply to all power swivel units, whether they are equipped with air or electric controls.

- The pump displacement control should always be used to change the speed of the swivel. Setting the engine at the rated rpm will prolong engine and pump life, burn less oil, and result in increased fuel economy.
- Set the speed control at neutral and allow the swivel to completely stop rotation before switching directions.
- Filters should be checked on a daily basis.
- The hydraulic fluid level should be checked daily. If the level is below the sight gauge, add hydraulic fluid.
- Do not permit the hydraulic oil temperature to exceed 190°F for extended periods.

**PRODUCT LINE**

Fishing &amp; Intervention | Power Swivels

**PRODUCT**

85-Ton Power Swivel

**Air Controls**

The air control system utilizes a lever-type control valve that is mounted on the remote-control panel. These controls provide variable air pressure from 0 to 100 psi to the actuator/positioner to control both engine rpm and the speed/direction of swivel rotation.

When the swivel control lever is in the center position, the pump is in neutral, and the Power Swivel is not rotating.

**Electric Controls**

Diesel engine rpm is controlled by the switch labeled "ENGINE" on the control panel.

Swivel rotation is controlled by the knob labeled "SWIVEL RPM." It utilizes a forward/neutral/reverse switch to control rotation direction. Moving the switch to the "FORWARD" position will cause the Power Swivel to move in a right-hand (clockwise) direction.

Turn the "ENGINE" switch to "RUN" to increase engine rpm.

Pressure compensating-type torque control overrides the speed control to automatically maintain the maximum pre-established torque limit. This is accomplished by destroking the pump while maintaining engine speed.



Model No.	PS85
Nominal Load Rating (tons)	85
Dynamic Load Rating @ 100 Rpm (tons)	45
Maximum Torque (ft.-lbs.)	3,952
Maximum Speed (rpm)	155
Maximum Circulating Pressure	5,000
Standard Stem Connection	2-7/8 IF
Gooseneck Connection	2-1/2 NPT
Swivel Head Assembly Weight (lbs.)	1,163

**POWER UNIT AND CONTROL SPECIFICATIONS**

Model No.	PS85
Diesel Engine *	QSB4.5 or C4.4
Engine Cont HP @ 2000 RPM	83
Hydraulic Output (max gpm/max psi)	43/5,000

\*Choice of Cummins, Caterpillar/Perkins, or John Deere

CAUTION: Before installing a Logan 85-Ton Power Swivel on a rig, refer to the installation procedure on page 5 of the instruction manual. Failure to properly install the Power Swivel can result in injury to the operator and rig floor personnel.

**PRODUCT LINE**

Fishing &amp; Intervention | Power Swivels

**PRODUCT**

85-Ton Power Swivel



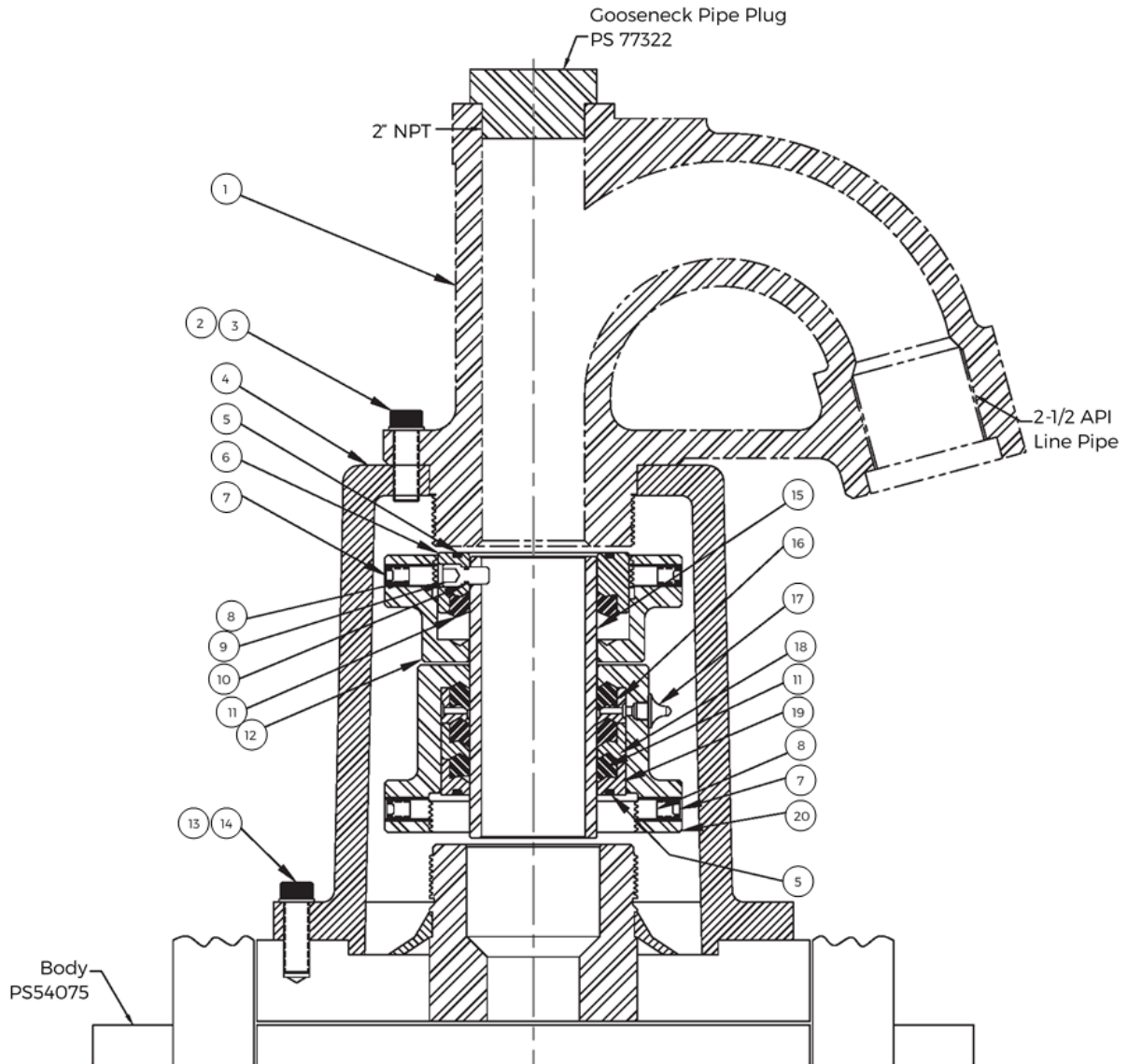
LOGAN PART NO	QTY	DESCRIPTION	LOGAN PART NO	QTY	DESCRIPTION
<b>Hydraulic Pump</b>			<b>Air Control Panel</b>		
PS311412-001	1	Hydraulic Pump for Air Controls, Closed Loop	PS09966-003	1	Pump Control Valve
PS311412-002	1	Hydraulic Pump for Electric Controls	PS29966	1	Engine Throttle Control Valve
PS02196	1	Pump Stroke Positioner	PS22236	1	0 – 3,950 ft./lbs. Torque Gauge
PS02196-002	1	Pump Stroke Positioner Repair Kit	PS220512	1	Engine Kill Valve
PS339412	1	Pump Stroke Positioner Bracket	PS80345-003	5	1/4" Quick Disconnect, Air Male x Male Pipe
PS73426	1	1/4" Check Valve	PS70345	1	1/4" Quick Disconnect, Hydraulic Male x Male Pipe
PS255002	1	Pump Motor Adapter	PS217752	1	Control Umbilical Bundle
PS99376-002	1	Auxiliary Pump (Hose Reel Hydraulic Winch	PS70345-001	5	1/4" Quick Disconnect, Air Female
PS529412	1	Air Shuttle Valve (Pump Stroke)	PS80345	1	1/4" Quick Disconnect, Hydraulic Female
<b>Hydraulic Reservoir</b>			<b>Air Preparation Package</b>		
PS89046-001	1	40-gal Hydraulic Tank Reservoir	PS81455-002	1	Air Preparation Package
Consisting of:			PS81455	1	3 Gallon Air Receiver
PS780412	1	Hydraulic Suction Strainer	PS24695	1	Gauge
PS754T08N	1	Hydraulic Suction 2" Ball Valve	PS73585	1	Safety Pop-Off Valve
PS099612	1	Hydraulic Return Filter Assembly	PS93646-001	1	Filter Regulator/Lubricator
PS099612-001	1	Hydraulic Return Filter Element Only	PS81455-003	1	Tank Guard
PS02311	1	Filler Breather Cap	<b>Electric Control Box</b>		
PS30795-002	1	Oil Level Gauge with Temperature	PSEC1009	1	Digital Torque Display
PS89046	1	Hydraulic Reservoir Only	PSEC1008	1	Electric Pump Stroke Control
PS233612	1	Relief Back Pressure Orifice	PSEC1041	1	Electric Control Cable Assembly
PS529412	1	Air Shuttle Valve	PS58628-010	2	Control Cable Connector Plug
<b>Fuel Tank</b>			PS58628-011	1	Panel Mount Connector Receptacle
PS96892-001	1	60-gal Fuel Tank Assembly	PSEC1006	1	Two-position Switch/Engine Throttle
Consisting of:			PSEC1007	1	Three-Position Switch/Direction Selector
PS96892	1	Fuel Tank Only	<b>Hydraulic Filters</b>		
PS96892-2	2	Fuel Sight Tube	PS915512	1	Charge Pump Filter
PS94626	1	1-1/4" High Pressure Ball Valve	PS780412-001	1	Suction Strainer
PS61648	2	High Pressure Filter Assemblies	PS099612-001	1	Return Filter Element
PS02311	1	Filler Breather Cap	PS921512-001	1	High Pressure Filter Element
PS811412	1	Fuel Suction Tube	<b>Hose Reel</b>		
PS811412-A	1	Fuel Return Tube	PS670712	1	Hose Reel Assembly
<b>Miscellaneous</b>			PS670712-HW	1	Hose Reel Assembly with Hydraulic Winch
PS57196	1	Heat Exchanger	PS06595	1	100 ft, High Pressure Hose Assembly
PS57196-002	1	Heat Exchanger Guard	PS67595	1	100 ft, 3/4" Case Drain Hose
PSMM9000	1	Electric Winch	PS195412	1	Hydraulic Valve for Reel
PS558612-001	1	Hydraulic Winch	PS195412-001	1	Hydraulic Valve for Reel with Hydraulic Winch
PS44046	1	Battery Box	PS52250-1	1	Valve Handle Replacement Only
PS64044-003	1	Toolbox	PS220712	1	Hydraulic Motor Hose Reel
PS211412	1	Power Swivel Stand	PS89638-002	1	Flow Control Hose Reel
PS02196-002	1	Pump Stroke Positioner Repair Kit	PS490412	1	Three-Port Coupling Hub
PS921412-002	1	High Pressure Filter Housing	PS120712	1	Torque Hub
PS921412-003	1	High Pressure Filter Head	PS990412	1	Flanged Bearing
PS473912	1	Three-Port Coupler Repair Kit			
<b>Air Torque Set Panel</b>					
PS223612	1	Torque Set Panel Assembly			
PS22236	1	0 – 3,950 ft./lbs. Torque Gauge			
PS98126	1	Torque Set Relief Valve			
PS220512	1	Torque Set Air Override Valve			

**PRODUCT LINE**

Fishing & Intervention | Power Swivels

**PRODUCT**

85-Ton Power Swivel


**FLOATING WASHPIPE ASSEMBLY (PS49028-001 REPLACEMENT PARTS)**

ITEM	LOGAN PART NO	QTY	DESCRIPTION	ITEM	LOGAN PART NO	QTY	DESCRIPTION
1	PS09028	1	Gooseneck	11	PS72327	1	Packing Set
2	ACSA8-500-13-150	4	1/2" - 13 x 1-1/2" Socket Head Cap Screw	12	PS39028	1	Upper Packing Nut
3	LKWA-500	4	1/2" Lock Washer	13	ACSA8-625-13-150	4	5/8" - 13 x 1-1/2" Socket Head Cap Screw
4	PS19028	1	Bonnet	14	LKWA-625	4	5/8" Lock Washer
5	568236-100	2	O-Ring	15	PS49028	1	Washpipe
6	PS79028	1	Upper Packing Nut Ring	16	PS69028	1	Spacer and Lantern Ring
7	PS50732-003	8	1/2" - 13 NC x 3/4 Socket Set Screw	17	PS63672	1	Packing Nut Grease Fitting
8	PS20128	8	Washpipe Packing Nut Screw Retainer	18	PS62327	1	Plain Spacer Ring
9	PS99028-001	3	Washpipe Locking Pin with O-Ring	19	PS42327	1	Packing Bottom Ring
10	568010-100	3	O-Ring	20	PS29028	1	Lower Packing Nut

For more information: visit [www.innovex-inc.com](http://www.innovex-inc.com) or contact your local sales office  
 Domestic and international patents and trademarks granted and/or applied for where applicable  
 REV- SEPTEMBER 2021

**NO  
BARRIERS**



**PRODUCT LINE**

Fishing &amp; Intervention | Power Swivels

**PRODUCT**

85-Ton Power Swivel


**INNOVEX**  
 LOGAN FISHING TOOLS

**SWIVEL HEAD PART LIST**

ITEM	PART NO	QTY	DESCRIPTION	ITEM	PART NO	QTY	DESCRIPTION
1	PS09028	1	Gooseneck	48	LKWA-375	8	3/8" Lockwasher
2	ACSA8-500-13-150	14	1/2" - 13 x 1-1/2" Long Socket Head Cap Screw	49	PS77322	1	Gooseneck Pipe Plug
3	LKWA-500	18	1/2" Lockwasher	50	PS20213-001	1	Elevator Ball (Cast)
4	PS19028	1	Bonnet	51	PS28444	1	Seal Protector
5	568236	2	O-Ring	52	PS34813-001	2	Bolt and Nut for Bail Pin
6	PS79028	1	Upper Packing Nut Ring	53	PS65115	2	Bail Pin
7	PS50732-003	8	1/2" - 13 NC x 3/4" Long Socket Set Screw with Brass Point	54	PS12965	1	Final Reduction Gear
8	PS20128	8	Washpipe Packing Nut Screw Retainer	55	PS64702	6	Ring Gear Groove Pin
9	PS99028	3	Washpipe Locking Pin with 568010 O-Ring	56	PS98402	1	Main Thrust Bearing
10	PS99028	3	O-Ring	57	PS04685	1	Low Stem Bearing Retainer
11	PS72327	1	Set Packing	58	PS70602	1	Lower Stem Bearing
12	PS39028	1	Upper Packing Nut	59	PS54075	1	Body
13	ACSA8-625-13-150	8	5/8" - 11 x 1-1/2" Long Socket Head Cap Screw	60	PS14685	1	Lower Stem Bearing Retainer
14	LKWA-625	23	5/8" Lockwasher	61	PS22602	2	Lower Oil Seal
15	PS49028	1	Washpipe	62	PS16303	1	Seal Retainer Snap Ring
16	PS69028	1	Spacer and Lantern Ring	63	PS51602	1	Lower Seal Wear Ring
17	PS63672	1	Packing Nut Grease Fitting	64	PS18444-001	1	Stem
18	PS62327	1	Plain Spacer Ring	65	PS64165	1	Second Reduction Pinion
19	PS42327	1	Packing Bottom Ring	66	PS05775	1	Second Reduction Gear Key
20	PS29028	1	Lower Packing Nut	67	PS15165	1	First Reduction Pinion Upper Bearing
21	HCSA8-625-13-150	9	5/8" - 11 x 1-1/2" Long Hex Head Cap Screw	68	PS37965	1	First Reduction Pinion Upper Gear
22	PS44322	4	Dowel Pin	69	PS05165	1	First Reduction Pinion Lower Bearing
23	AHSS-625-11-625	4	5/8" - 11 x 5/8" Long Allen Head Set Screw	70	PS44685	1	First Reduction Pinion Bearing Spacer
24	PS77122	1	Filler Plug Relief Fitting	71	PS12685	1	Lower Gear Cover Gasket
25	PS98352	1	Oil Filler Plug	72	PS25165	1	First Reduction Pinion Oil Seal
26	PS72602	1	Magnetic Drain Plug	73	PS62516	1	Hydraulic Motor Adapter
27	PS72516	1	7/8" - 14 NPT x 3/4" Adapter	74	PS08327	1	Retainer Ring
28	PS26274	1	3/4" x 90, 150# Street Ell	75	PS97327	1	Motor Adapter Sleeve
29	PS86753	1	3/4" Close Nipple	76	PS45165	1	Retainer Ring
30	PS79052-001	1	3/4" Wing Nut Quick Disconnect	77	PS85152	1	Second Reduction Shaft Lower Bearing
31	PS90152-002	1	3/4" Metal Dust Cap	78	PS65165	2	Reduction Gear Key
32	PS90152-003	1	3/4" Metal Dust Plug	79	PS95675	1	Lower Gear Cover Plate
33	PS55164	1	Lower Bearing Retainer Gasket	80	PS27965	1	First Reduction Gear
34	HCSA8-625-11-175	6	5/8" - 11 x 1-3/4" Long Hex Head Cap Screw	81	PS84165	3	Roller Bearing
35	PS50602	1	Saver Sub	82	PS55935	1	Oil Seal Grease Fitting
36	HCSA8-500-13-150	4	1/2" - 13 x 1-1/2" Long Hex Head Cap Screw	83	PS90137	1	Oil Level Indicator Plug
37	N/A	-	-	84	PS88402	1	Upper Stem Bearing
38	PS53506	2	1" Swivel Joint	85	PS02685	1	Upper Oil Seal
39	PS55115-003	1	Shackle	86	PS12165	1	Second Reduction Gear
40	PS55115-002	1	Torque Rein Assembly (Long)	87	PS53775	1	Upper Gear Cover Plate
41	PS697702	1	Torque Rein Eye	88	PS03165	1	Final Reduction Pinion
42	PS21415	1	Torque Rein Pull Pin	89	PS95516-001	1	Motor Guard
43	PS91875	1	Upper Gear Cover Shim	90	PSWB3	3	Hose Safety Cable
44	PS91826-003	1	Hydraulic Motor	91	G14085-BULK	-	HD-85W-140 Gear Lube, 2.5 Gal
45	PS65895	2	1" - 4" Bolt Elbow Flange	92	PS65152	1	1" Quick Disconnect Coupler
46	46 568219-200	2	Flange O-Ring	93	PS01152	1	1" Quick Disconnect Nipple
47	47 ACSA8-375-13-275	8	3/8" - 16x2-3/4" Long Socket Head Cap Screw	94	PS71101-001	-	Hydraulic Motor Shaft Seal Kit

**TORQUE REINS AND COMPONENTS**

Part Number	Description	Length/Stroke
PS55115-002	PS85 Long Torque Rein (standard with head or unit)	Retracted 31.25"/Extended 48.5" Long
PS55115-001	PS85 Short Torque Rein	Retracted 20"/Extended 26.5" Long
PS55115-006	PS85 Extra Short Torque Rein	Retracted 12"/Extended 19" Long
PS55116-001	PS85 Torque Rein Roller Assembly (includes insert to minimize movement to Torque Rein)	

For more information: visit [www.innovex-inc.com](http://www.innovex-inc.com) or contact your local sales office  
 Domestic and international patents and trademarks granted and/or applied for where applicable  
 REV- SEPTEMBER 2021

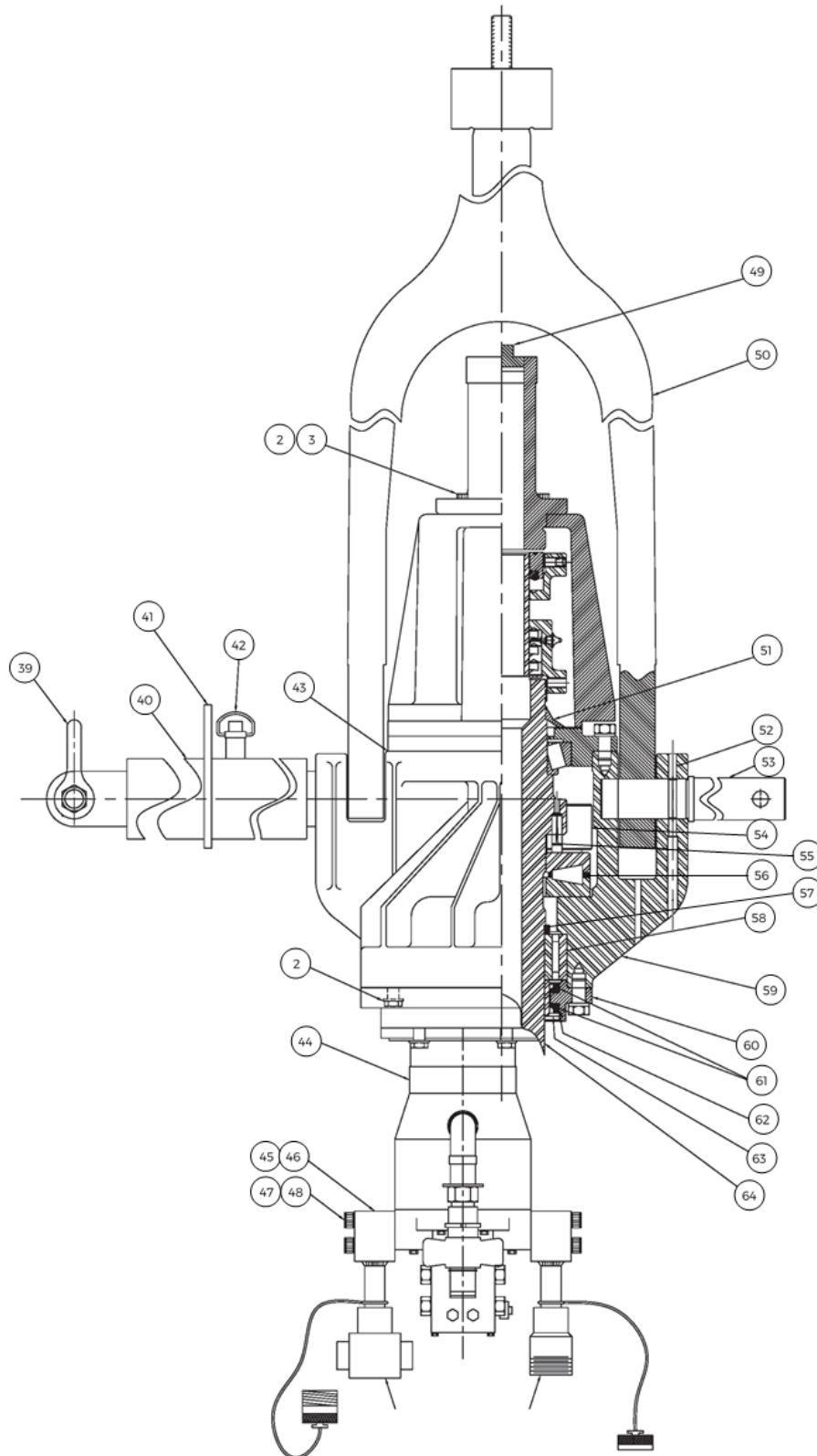
**NO  
BARRIERS**

**PRODUCT LINE**

Fishing &amp; Intervention | Power Swivels

**PRODUCT**

85-Ton Power Swivel

**INNOVEX**  
LOGAN FISHING TOOLS**SWIVEL HEAD - FRONT VIEW**

For more information: visit [www.innovex-inc.com](http://www.innovex-inc.com) or contact your local sales office  
Domestic and international patents and trademarks granted and/or applied for where applicable  
REV- SEPTEMBER 2021

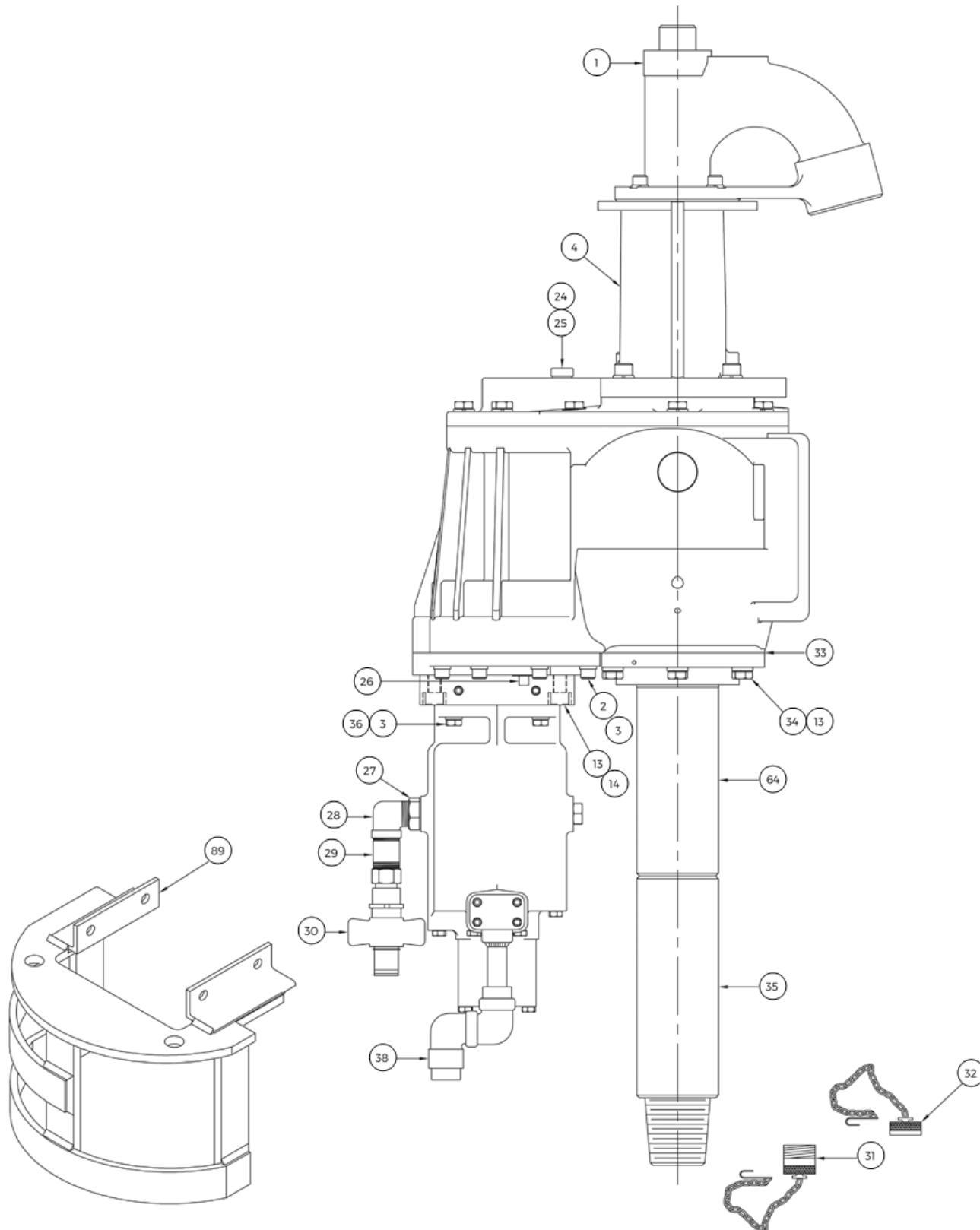
**NO  
BARRIERS**

**PRODUCT LINE**

Fishing &amp; Intervention | Power Swivels

**PRODUCT**

85-Ton Power Swivel

**INNOVEX**  
LOGAN FISHING TOOLS**SWIVEL HEAD - SIDE VIEW**

For more information: visit [www.innovex-inc.com](http://www.innovex-inc.com) or contact your local sales office  
Domestic and international patents and trademarks granted and/or applied for where applicable  
REV- SEPTEMBER 2021

**NO  
BARRIERS**

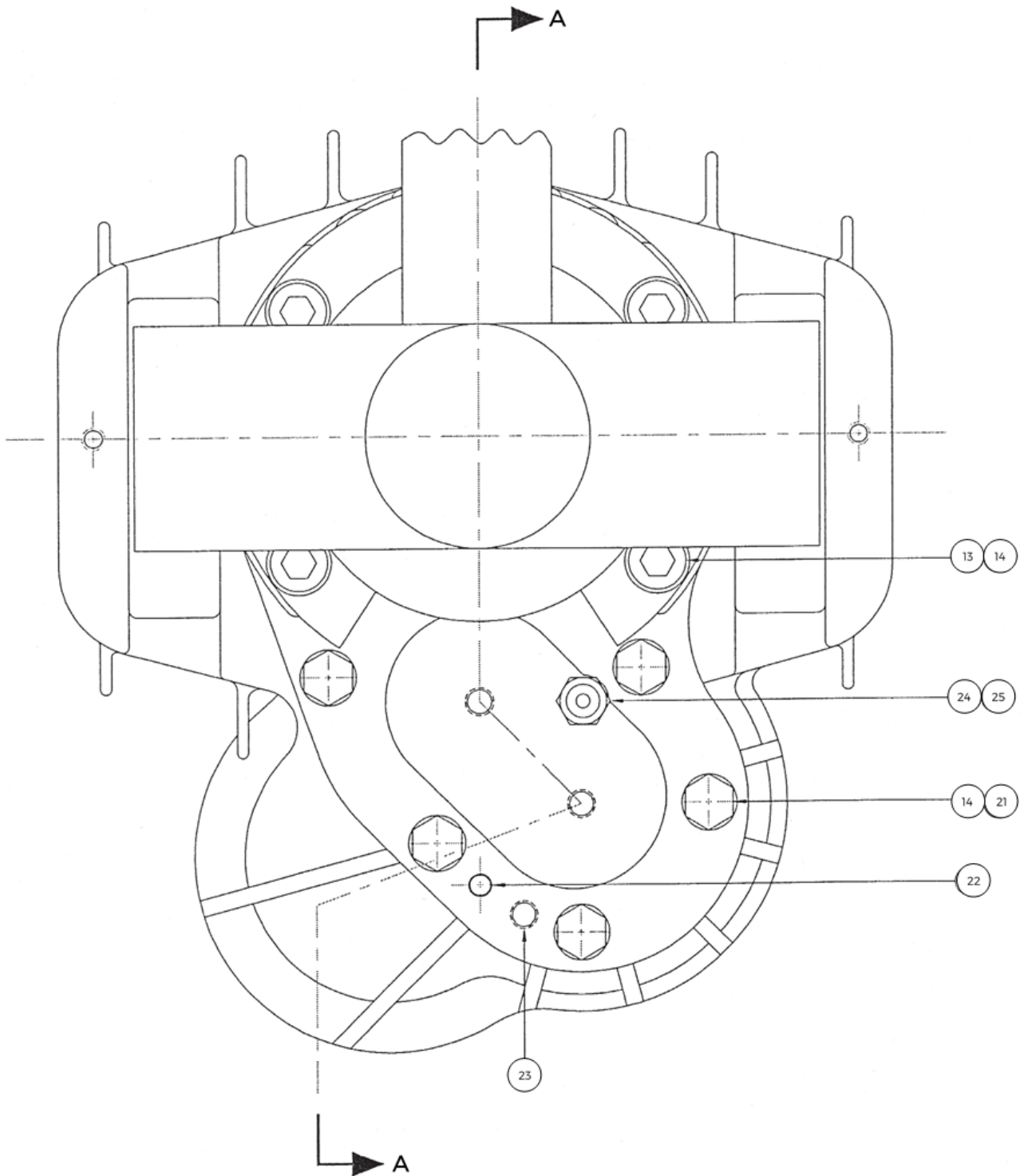


**PRODUCT LINE**

Fishing &amp; Intervention | Power Swivels

**PRODUCT**

85-Ton Power Swivel

**INNOVEX**  
LOGAN FISHING TOOLS**SWIVEL HEAD - TOP VIEW**

**PRODUCT LINE**

Fishing &amp; Intervention | Power Swivels

**PRODUCT**

85-Ton Power Swivel

**SECTION A-A - THROUGH GEAR TRAIN**