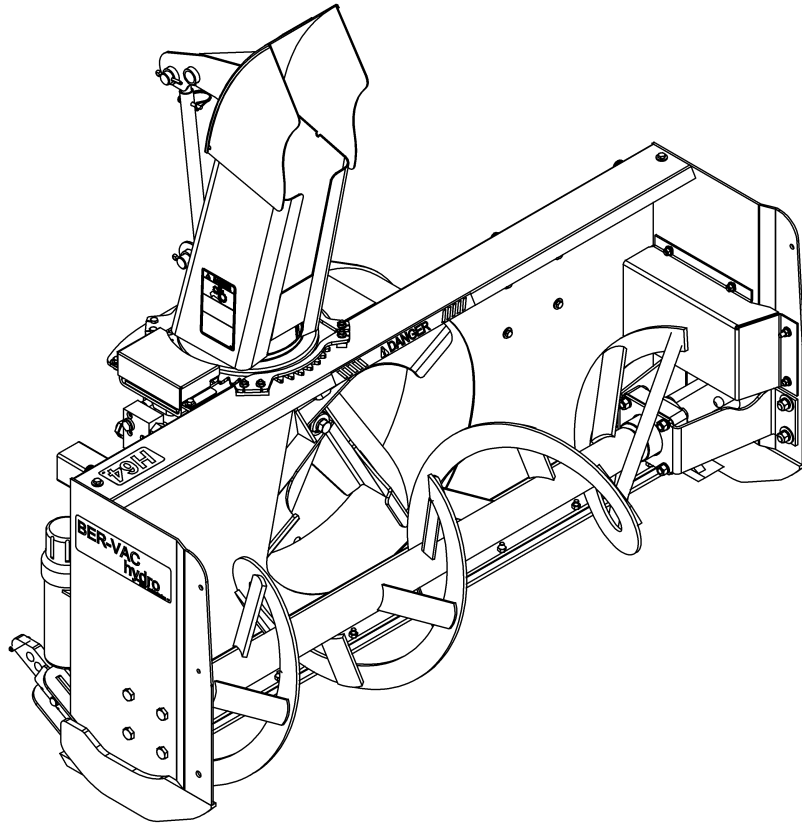


BER-VAC



PARTS MANUAL

64" HYDRAULIC SNOWBLOWER – H64A

76" HYDRAULIC SNOWBLOWER – H76A

84" HYDRAULIC SNOWBLOWER – H84A

SERIAL NO. 2100000 AND UP

PM 0303SB-A
02/10-1



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PARTS

INTRODUCTION

All parts are illustrated in "exploded views" which show the individual parts in their normal relationship to each other. Reference numbers are used in the illustrations. These numbers correspond to those in the "Reference Number" (REF) column, and are followed by the description and quantity required.

O/L - "Obtain Locally" in the part number column indicates common hardware that is available at your local hardware supply.

Right hand and left hand are determined by those seen by the conductor standing behind the equipment.

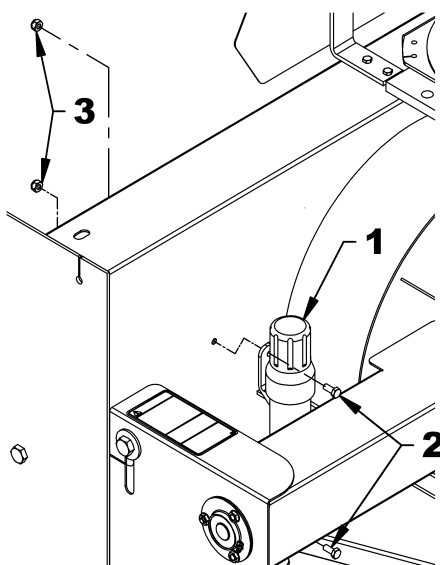
Orders must give the complete description, correct part number, the total amount required, the serial number, the method of shipment and the shipping address.

The manufacturer reserves the rights to change, modify, or eliminate from time to time, for technical or other reasons, certain or all data, specifications, or the product or products themselves, without any liability or obligation.

The parts listed here are available through your local dealer.

MANUAL HOLDER – ALL MODELS

| REF. | DESCRIPTION | QTÉ | # PIÈCE |
|------|---|-----|---------|
| 1 | Manual holder | 1 | 4200036 |
| 2 | Bolt hex. 5/16" NC x 3/4" lg gr. 5, PTD | 2 | O/L |
| 3 | Nut nylon insert 5/16" NC, PTD | 2 | O/L |



PARTS

Replace immediately if damaged
For H64A snowblower

⚠ DANGER

TO AVOID SERIOUS INJURY:
 KEEP HANDS OUT OF THIS
 DISCHARGE CHUTE WHILE
 ENGINE IS RUNNING

POUR ÉVITER DES
 BLESSURES GRAVES:
 GARDER LES MAINS ÉLOIGNÉES
 DE CETTE GOULOTTE LORSQUE
 LE MOTEUR EST EN MARCHÉ 86

656779

⚠ WARNING

FAILURE TO FOLLOW SAFE OPERATING PROCEDURES MAY RESULT IN INJURY.

- FOR SAFE OPERATION FOLLOW ALL OPERATING INSTRUCTIONS AND SAFETY PRECAUTIONS IN OPERATOR'S MANUAL.
- EYE PROTECTION MUST BE WORN AT ALL TIMES.
- KEEP HANDS, FEET AND CLOTHING AWAY FROM POWER DRIVEN PARTS.
- STOP ENGINE BEFORE LEAVING OPERATOR POSITION.
- WAIT FOR ALL MOVEMENTS TO STOP BEFORE STARTING TO ADJUST, LUBRICATE, CLEAN OR UNCLG THE MACHINE.
- KEEP THE AREA OF OPERATION CLEAR OF ALL PERSONS AND ANIMALS.
- KEEP ALL GUARDS AND SHIELDS IN PLACE.
- NEVER DIRECT DISCHARGE TOWARD BYSTANDERS, BUILDINGS, CARS ETC.
- ALWAYS USE A DUST MASK WHEN WORKING IN DUSTY CONDITIONS.
- KEEP PLASTIC MATERIALS AWAY FROM INTENSE HEAT AND OPEN FLAME.
- NEVER ALLOW PASSENGERS ON THE ATTACHMENT.

228

⚠ MISE EN GARDE

NÉGLIGER DE SUIVRE LES PROCÉDURES SECURITAIRES D'UTILISATION PEUT ENTRAÎNER DES BLESSURES.

- POUR UNE UTILISATION SECURITAIRE, SUIVRE TOUTES LES INSTRUCTIONS D'UTILISATION ET PRECAUTIONS SECURITAIRES DANS LE MANUEL DE L'OPERATEUR.
- PORTER DES LUNETTES DE SECURITE EN TOUT TEMPS.
- GARDER MAINS, PIEDS ET VÊTEMENTS ÉLOIGNÉS DES PIÈCES MOTRICES.
- ARRÊTER LE MOTEUR AVANT DE QUITTER LA POSITION DE L'OPERATEUR.
- ATTENDRE QUE TOUTS LES MOUVEMENTS SOIENT ARRÊTÉS AVANT D'AJUSTER, LUBRIFIER, NETTOYER OU DÉBLOQUER LA MACHINE.
- GARDER L'ENDROIT D'UTILISATION DÉGAGÉ DE TOUTES PERSONNES ET ANIMAUX.
- GARDER TOUTS LES ÉCRANS PROTECTEURS EN PLACE.
- JAMAIS DIRIGER L'ÉVACUATION VERS DES PIÉTONS, BÂTIMENTS, AUTOMOBILES, ETC.
- TOUJOURS UTILISER UN MASQUE À POUSSIÈRE DANS UN ENVIRONNEMENT POUSSIÉREUX.
- GARDER TOUTES LES MATIÈRES PLASTIQUES ÉLOIGNÉES DE LA CHALEUR INTENSE ET DES FLAMMES.
- NE JAMAIS PERMETTRE DE PASSAGERS SUR CETTE MACHINE.

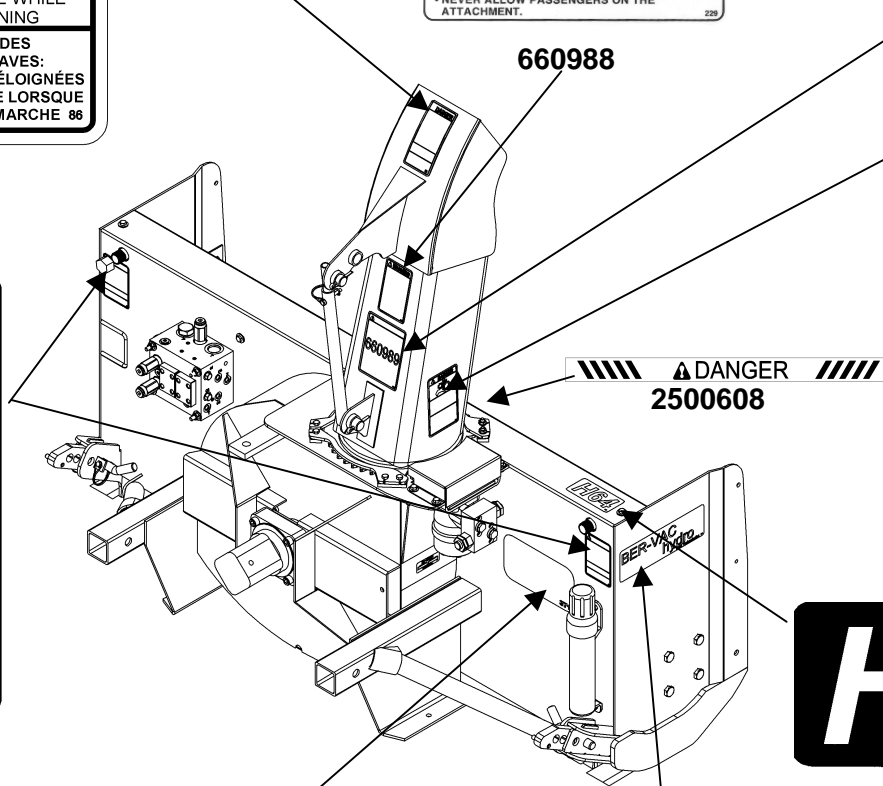
228

⚠ DANGER

AVOID INJURY FROM
 ROTATING AUGER
 KEEP HANDS, FEET AND
 CLOTHING AWAY

POUR ÉVITER DES
 BLESSURES GRAVES:
 GARDER LES MAINS, LES PIEDS
 ET LES VÊTEMENTS ÉLOIGNÉS
 DES VIS SANS FIN 87

656780



⚠ DANGER

AVOID INJURY FROM ROTATING GEARS:

- KEEP HANDS AND CLOTHING AWAY
- STOP ENGINE AND REMOVE IGNITION KEY BEFORE COMING NEAR ROTATING GEARS
- DO NOT ATTEMPT TO INSTALL OR REMOVE ROTATING GEARS WITHOUT READING OPERATOR'S MANUAL

ÉVITEZ LES BLESSURES PAR LES ENGRENAGES:

- GARDER MAINS ET VÊTEMENTS ÉLOIGNÉS
- ARRÊTEZ LE MOTEUR ET ENLEVEZ LA CLÉ DE CONTACT AVANT DE VOUS APPROCHER DES ENGRENAGES
- NE TENTEZ PAS D'INSTALLER OU D'ENLEVER LES ENGRENAGES SANS LIRE LE MANUEL D'OPERATEUR 88



⚠ WARNING - ATTENTION

• TO AVOID SERIOUS PERSONAL INJURY, ESCAPING HYDRAULIC FLUID UNDER PRESSURE CAN PENETRATE THE SKIN CAUSING SERIOUS INJURY.

• DO NOT USE YOUR HANDS TO CHECK FOR LEAKS. USE A PIECE OF CARDBOARD OR PAPER TO SEARCH FOR LEAKS.

• STOP ENGINE AND RELIEVE PRESSURE BEFORE CONNECTING OR DISCONNECTING LINES.

• TIGHTEN ALL CONNECTIONS BEFORE STARTING ENGINE OR PRESSURIZING LINES.

• IF ANY FLUID IS INJECTED INTO THE SKIN, OBTAIN MEDICAL ATTENTION IMMEDIATELY OR GANGRENE MAY RESULT.

UN LIQUIDE HYDRAULIQUE / DIESEL QUI S'ÉCHAPPE SOUS PRESSION PEUT PÉNÉTRER LA PEAU ET CAUSER DES BLESSURES SÉRIEUSES.

NE PAS UTILISER LES MAINS POUR CHERCHER UNE FUITE. UTILISER UN MORCEAU DE PAPIER OU DE CARTON.

ARRÊTER LE MOTEUR ET ÉVACUER LA PRESSION AVANT DE CONNECTER OU DE DÉCONNECTER LES LIGNES.

SERRER TOUTES LES CONNEXIONS AVANT DE DEMARRER LE MOTEUR OU DE REMETTRE LA PRESSION SUR LES LIGNES.

SI UN LIQUIDE EST INJECTÉ DANS LA PEAU, OBTENIR IMMÉDIATEMENT UNE ATTENTION MÉDICALE. UNE GANGRÈNE PEUT RÉSULTER. 89

2500315

PARTS

Replace immediately if damaged For H76A & H84 snowblowers

MISE EN GARDE

NÉGLIGER DE SUIVRE LES PROCÉDURES SÉCURITAIRES D'UTILISATION PEUT ENTRAÎNER DES BLESSURES.

- POUR UNE UTILISATION SÉCURITAIRE, SUIVRE TOUTES LES INSTRUCTIONS D'UTILISATION ET PRÉCAUTIONS SÉCURITAIRES DANS LE MANUEL DE L'OPÉRATEUR.
- PORTER DES LUNETTES DE SÉCURITÉ EN TOUT TEMPS.
- GARDER MAINS, PIEDS ET VÊTEMENTS ÉLOIGNÉS DES PIÈCES MOTRICES.
- ARRÊTER LE MOTEUR AVANT DE QUITTER LA POSITION DE L'OPÉRATEUR.
- ATTENDRE QUE TOUTS LES MOUVEMENTS SOIENT ARRÊTÉS AVANT D'AJUSTER, LUBRIFIER, NETTOYER OU DÉBLOQUER LA MACHINE.
- GARDER L'ENDROIT D'UTILISATION DÉGAGÉ DE TOUTES PERSONNES ET ANIMAUX.
- GARDER TOUS LES ÉCRANS PROTECTEURS EN PLACE.
- JAMAIS DIRIGER L'ÉVACUATION VERS DES PIÉTONS, BÂTIMENTS, AUTOMOBILES, ETC.
- TOUJOURS UTILISER UN MASQUE À POUSSIÈRE DANS UN ENVIRONNEMENT POUSSIÉREUX.
- GARDER TOUTES LES MATIÈRES PLASTIQUES ÉLOIGNÉES DE LA CHALEUR INTENSE ET DES FLAMMES.
- NE JAMAIS PERMETTRE DE PASSAGERS SUR CETTE MACHINE.

WARNING

FAILURE TO FOLLOW SAFE OPERATING PROCEDURES MAY RESULT IN INJURY.

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- EYE PROTECTION MUST BE WORN AT ALL TIMES.
- KEEP HANDS, FEET AND CLOTHING AWAY FROM POWER DRIVEN PARTS.
- STOP ENGINE BEFORE LEAVING OPERATOR POSITION.
- WAIT FOR ALL MOVEMENTS TO STOP BEFORE STARTING TO ADJUST, LUBRICATE, CLEAN OR UNLOCK THE MACHINE.
- KEEP THE AREA OF OPERATION CLEAR OF ALL PERSONS AND ANIMALS.
- KEEP ALL GUARDS AND SHIELDS IN PLACE.
- NEVER DIRECT DISCHARGE TOWARD BYSTANDERS, BUILDINGS, CARS ETC.
- ALWAYS USE A DUST MASK WHEN WORKING IN DUSTY CONDITIONS.
- KEEP PLASTIC MATERIALS AWAY FROM INTENSE HEAT AND OPEN FLAME.
- NEVER ALLOW PASSENGERS ON THE ATTACHMENT.

DANGER

TO AVOID SERIOUS INJURY: KEEP HANDS OUT OF THIS DISCHARGE CHUTE WHILE ENGINE IS RUNNING

POUR ÉVITER DES BLESSURES GRAVES: GARDER LES MAINS ÉLOIGNÉES DE CETTE GOULOTTE LORSQUE LE MOTEUR EST EN MARCHÉ

DANGER

AVOID INJURY FROM ROTATING GEARS: KEEP HANDS AND CLOTHING AWAY

- STOP ENGINE AND REMOVE IGNITION KEY BEFORE COMING NEAR ROTATING GEARS
- DO NOT ATTEMPT TO INSTALL OR REMOVE ROTATING GEARS WITHOUT READING OPERATOR'S MANUAL.

ÉVITEZ LES BLESSURES PAR LES ENGRENAGES:

- GARDEZ MAINS ET VÊTEMENTS ÉLOIGNÉS
- ARRÊTEZ LE MOTEUR ET ENLEVEZ LA CLÉ DE CONTACT AVANT DE VOUS APPROCHER DES ENGRENAGES
- NE TENTEZ PAS D'INSTALLER OU D'ENLEVER LES ENGRENAGES SANS LIRE LE MANUEL D'OPÉRATEUR

660989

660988

656779

2500330

DANGER

AVOID INJURY FROM ROTATING AUGER KEEP HANDS, FEET AND CLOTHING AWAY

POUR ÉVITER DES BLESSURES GRAVES: GARDER LES MAINS, LES PIEDS ET LES VÊTEMENTS ÉLOIGNÉS DES VIS SANS FIN

656780

DANGER

2500608

H76

2500312

H84

2500632

WARNING - ATTENTION

- TO AVOID SERIOUS PERSONAL INJURY: ESCAPING HYDRAULIC FLUID UNDER PRESSURE CAN PENETRATE THE SKIN CAUSING SERIOUS INJURY.
- DO NOT USE YOUR HANDS TO CHECK FOR LEAKS. USE A PIECE OF CARDBOARD OR PAPER TO SEARCH FOR LEAKS.
- STOP ENGINE AND RELIEVE PRESSURE BEFORE CONNECTING OR DISCONNECTING LINES.
- TIGHTEN ALL CONNECTIONS BEFORE STARTING ENGINE OR PRESSURIZING LINES.
- IF ANY FLUID IS INJECTED INTO THE SKIN, OBTAIN MEDICAL ATTENTION IMMEDIATELY OR GANGRENE MAY RESULT.

- UN LIQUIDE HYDRAULIQUE / DIESEL QUI S'ÉCHAPPE SOUS PRESSION PEUT PÉNÉTRER LA PEAU ET CAUSER DES BLESSURES SÉRIEUSES.
- NE PAS UTILISER LES MAINS POUR CHERCHER UNE FUITE. UTILISER UN MORCEAU DE PAPIER OU DE CARTON.
- ARRÊTER LE MOTEUR ET ÉVACUER LA PRESSION AVANT DE CONNECTER OU DE DÉCONNECTER LES LIGNES.
- SERRER TOUTES LES CONNEXIONS AVANT DE DÉMARRER LE MOTEUR OU DE REMETTRE LA PRESSION SUR LES LIGNES.
- SI UN LIQUIDE EST INJECTÉ DANS LA PEAU, OBTENIR IMMÉDIATEMENT UNE ATTENTION MÉDICALE. UNE GANGRÈNE PEUT RÉSULTER.

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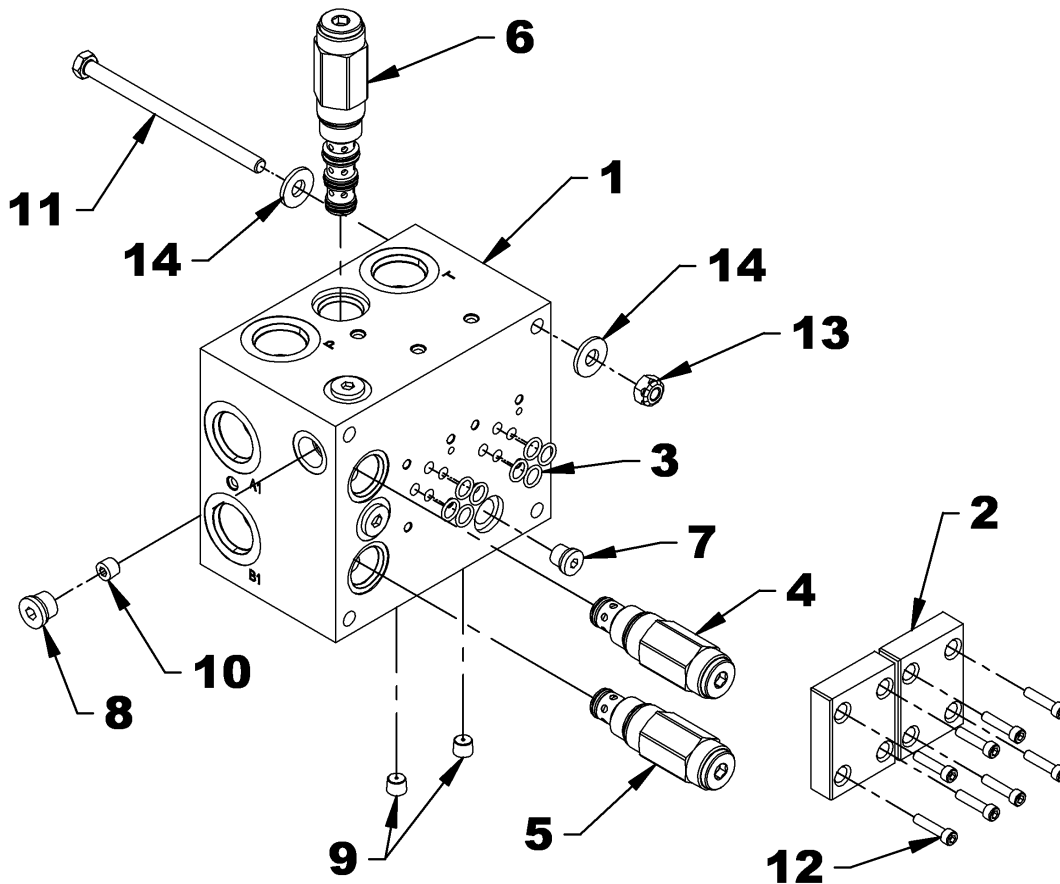


2500308

PARTS

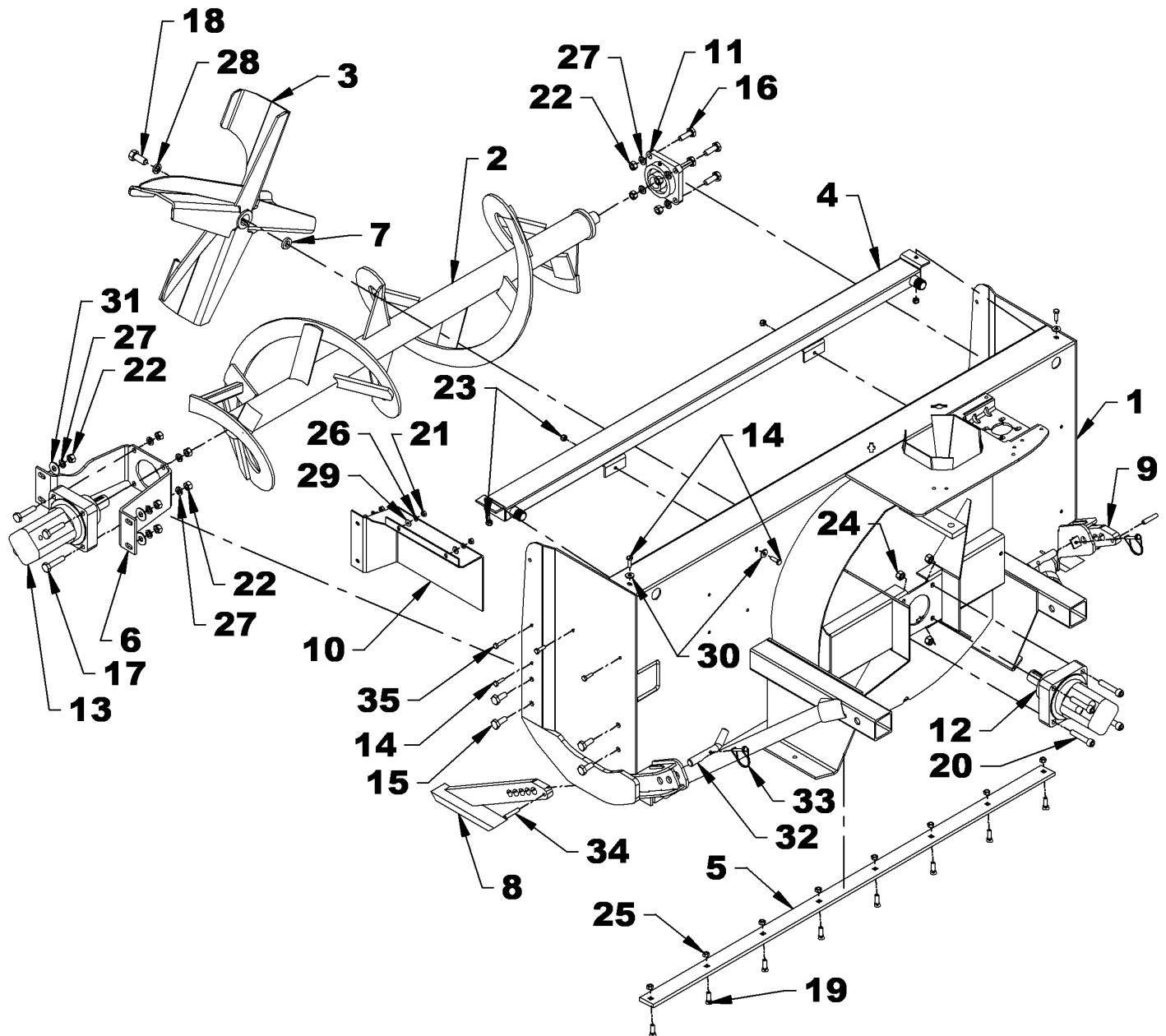
HYDRAULIC BLOCK ASSEMBLY – 3920030

| REF. | DESCRIPTION | QTY | PART # |
|------|--|-----|---------|
| 1 | Hydraulic block | 1 | 3920027 |
| 2 | Cover | 2 | 3920028 |
| 3 | O-ring 0.07" x 3/8" x 1/2" ext | 8 | 3900462 |
| 4 | Pressure restrictor preset @ 2000 PSI | 1 | 3900457 |
| 5 | Pressure restrictor preset @ 3000 PSI | 1 | 3900458 |
| | Seal kit for 3900457 et 3900458 | 2 | 3900459 |
| 6 | 4 way sequential valve preset @ 1700 PSI | 1 | 3900460 |
| | Seal kit for 3900460 | 1 | 3900461 |
| 7 | Hydraulic male cap 7/16" ORB | 1 | 2600213 |
| 8 | Hydraulic male cap 9/16" ORB | 6 | 2600212 |
| 9 | Flow restrictor 0.0781" hole | 2 | 669269 |
| 10 | Flow restrictor 0.0935" hole | 1 | 665942 |
| 11 | Bolt hex. 5/16 NC x 5" gr.5, PTD | 4 | 0100033 |
| 12 | Allen socket head cap screw 10-24 NC x 7/8" gr.5 black, cylindr. | 8 | 0800047 |
| 13 | Nylon insert locknut 5/16 NC, PTD | 4 | 1000005 |
| 14 | Flat washer 5/16" (3/8" int), PTD | 8 | 1400003 |



PARTS

HYDRAULIC SNOWBLOWER H64A



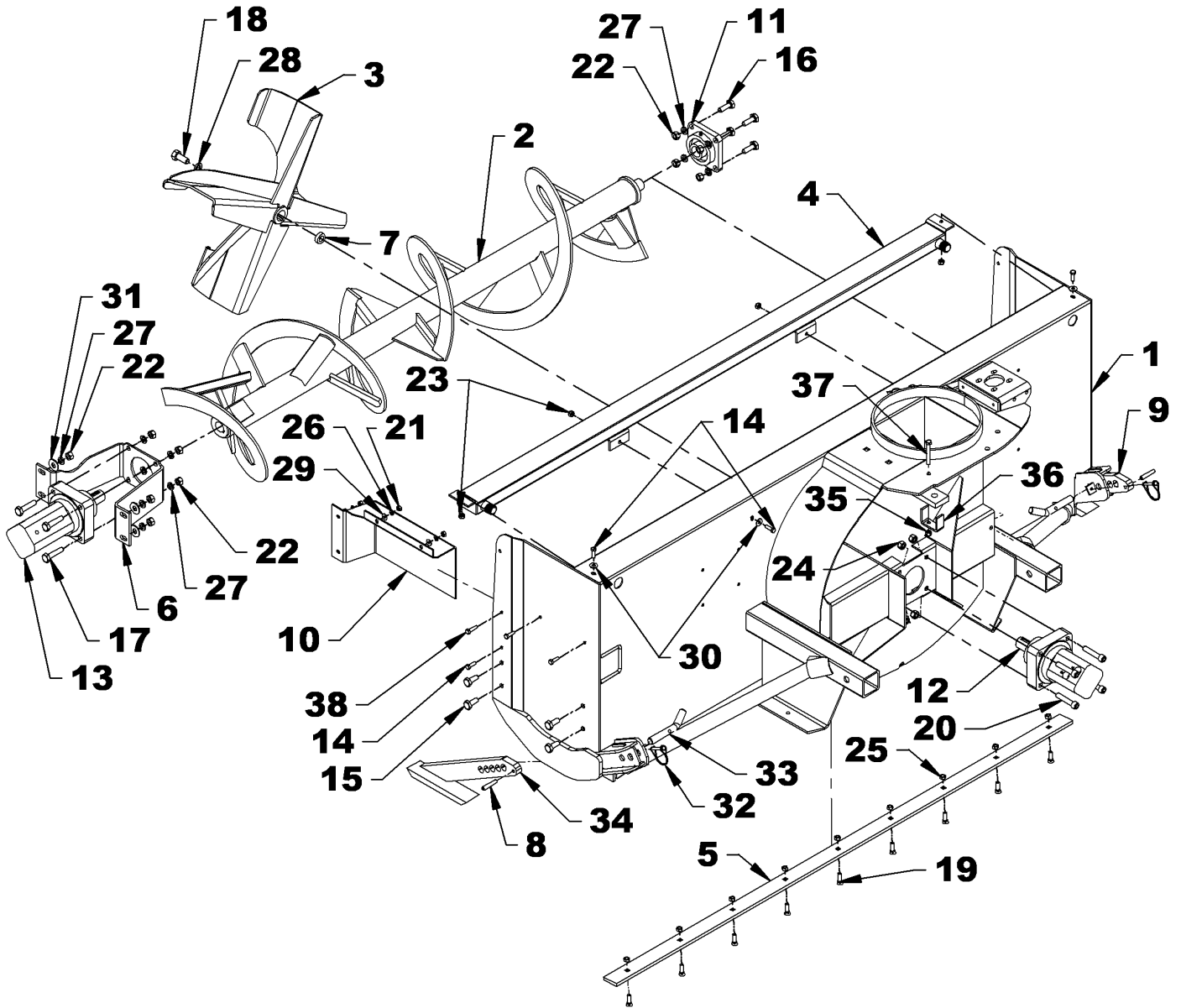
PARTS

HYDRAULIC SNOWBLOWER H64A

| REF. | DESCRIPTION | QTY | PART # |
|------|---|-----|---------|
| 1 | Housing | 1 | ----- |
| 2 | Auger | 1 | 669292 |
| 3 | Fan | 1 | 669290 |
| 4 | Oil cooler | 1 | 669291 |
| 5 | Cutting edge | 1 | 669305 |
| 6 | Motor support | 1 | 669139 |
| 7 | Spacer | 1 | 669357 |
| 8 | Right skid shoe | 1 | 669020 |
| 9 | Left skid shoe | 1 | 669021 |
| 10 | Hose guard | 1 | 669145 |
| 11 | Flange bearing 1 1/4", 4 holes | 1 | 4300001 |
| 12 | Hydraulic motor 89cc without valve | 1 | 3910058 |
| 13 | Hydraulic motor 293cc without valve | 1 | 3910059 |
| 14 | Bolt hex. 5/16" NC x 1" gr.5, PTD | 7 | 0100019 |
| 15 | Bolt hex. 1/2" NC x 1 1/4" gr.5, PTD | 4 | 0100069 |
| 16 | Bolt hex. 1/2" NC x 1 1/2" gr.5, PTD | 4 | 0100070 |
| 17 | Bolt hex. 1/2" NC x 2 1/4" gr.5, PTD | 4 | 0100075 |
| 18 | Bolt hex. 5/8" NF x 1 1/2" gr.5, PTD | 1 | 0100240 |
| 19 | Plow bolt 3/8" NC x 1 1/4" Gr.5 PTD | 8 | 0400002 |
| 20 | Allen socket head cap screw 1/2 NC x 2 1/2" Gr.5 black, cylind. | 4 | 0800021 |
| 21 | Nut hex. 5/16" NC | 4 | 0900002 |
| 22 | Nut hex. 1/2" NC | 12 | 0900006 |
| 23 | Nylon insert locknut 5/16-18NC PTD | 4 | 1000005 |
| 24 | Nylon insert locknut 1/2"-13NC PTD | 4 | 1000011 |
| 25 | Stover locknut 3/8" NC PTD | 8 | 1100003 |
| 26 | Lockwasher 5/16" PTD | 4 | 1200003 |
| 27 | Lockwasher 1/2" PTD | 12 | 1200006 |
| 28 | Lockwasher 5/8" PTD | 1 | 1200007 |
| 29 | Flat washer 1/4" (5/16" int) PTD | 4 | 1400002 |
| 30 | Flat washer 5/16" (3/8" int) PTD | 4 | 1400003 |
| 31 | Flat washer 1/2" (9/16" int) PTD | 4 | 1400006 |
| 32 | Pin for skid shoe | 2 | 667899 |
| 33 | Round wire lock pin 1/4" X 1 3/4" | 2 | 1900006 |
| 34 | Spring pin dia. 3/8" X 2" lg | 2 | 1600024 |
| 35 | Bolt hex. 5/16" NC x 1 1/4" gr.5, PTD | 1 | 0100020 |

PARTS

HYDRAULIC SNOWBLOWER H64A, H76A & H84A



PARTS

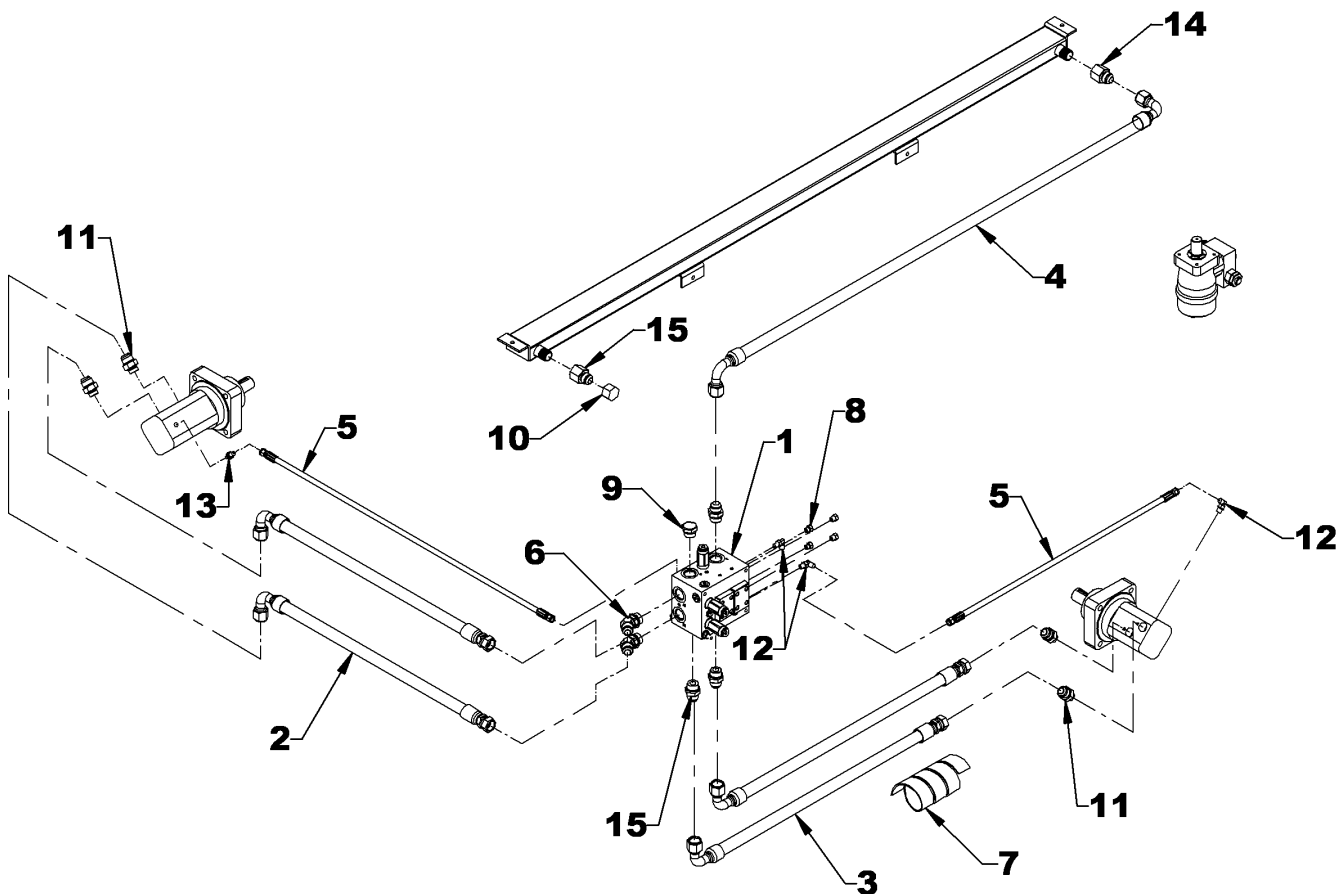
HYDRAULIC SNOWBLOWER H64A, H76A & H84A

| REF. | DESCRIPTION | QTY | PART # |
|------|---|-----|---------|
| 1 | Housing H76A | 1 | ----- |
| | Housing H84A | 1 | ----- |
| 2 | Auger H76A | 1 | 669141 |
| | Auger H84A | 1 | 669304 |
| 3 | Fan | 1 | 669138 |
| 4 | Oil cooler | 1 | 669137 |
| 5 | Cutting edge H76A | 1 | 669306 |
| | Cutting edge H84A | 1 | 669307 |
| 6 | Motor support | 1 | 669139 |
| 7 | Spacer | 1 | 669140 |
| 8 | Right skid shoe | 1 | 669020 |
| 9 | Left skid shoe | 1 | 669021 |
| 10 | Hose guard | 1 | 669145 |
| 11 | Flange bearing 1 1/4", 4 holes | 1 | 4300001 |
| 12 | Hydraulic motor 127cc without valve | 1 | 3910021 |
| 13 | Hydraulic motor 409cc without valve | 1 | 3910022 |
| 14 | Bolt hex. 5/16" NC x 1" gr.5, PTD | 7 | 0100019 |
| 15 | Bolt hex. 1/2" NC x 1 1/4" gr.5, PTD | 4 | 0100069 |
| 16 | Bolt hex. 1/2" NC x 1 1/2" gr.5, PTD | 4 | 0100070 |
| 17 | Bolt hex. 1/2" NC x 2 1/4" gr.5, PTD | 4 | 0100075 |
| 18 | Bolt hex. 5/8" NF x 1 1/2" gr.5, PTD | 1 | 0100240 |
| 19 | Plow bolt 3/8" NC x 1 1/4" Gr.5 PTD for H76A | 9 | 0400002 |
| | Plow bolt 3/8" NC x 1 1/4" Gr.5 PTD for H84A | 10 | 0400002 |
| 20 | Allen socket head cap screw 1/2 NC x 2 1/2" Gr.5 black, cylind. | 4 | 0800021 |
| 21 | Nut hex. 5/16" NC | 4 | 0900002 |
| 22 | Nut hex. 1/2" NC | 12 | 0900006 |
| 23 | Nylon insert locknut 5/16-18NC PTD | 4 | 1000005 |
| 24 | Nylon insert locknut 1/2"-13NC PTD | 4 | 1000011 |
| 25 | Stover locknut 3/8" NC PTD for H76A | 9 | 1100003 |
| | Stover locknut 3/8" NC PTD for H84A | 10 | 1100003 |
| 26 | Lockwasher 5/16" PTD | 4 | 1200003 |
| 27 | Lockwasher 1/2" PTD | 12 | 1200006 |
| 28 | Lockwasher 5/8" PTD | 1 | 1200007 |
| 29 | Flat washer 1/4" (5/16" int) PTD | 4 | 1400002 |
| 30 | Flat washer 5/16" (3/8" int) PTD | 4 | 1400003 |
| 31 | Flat washer 1/2" (9/16" int) PTD | 4 | 1400006 |
| 32 | Pin for skid shoe | 2 | 667899 |
| 33 | Round wire lock pin 1/4" X 1 3/4" | 2 | 1900006 |
| 34 | Spring pin dia. 3/8" X 2" lg | 2 | 1600024 |
| 35 | Nylon insert locknut 3/8" NC | 2 | 1000006 |
| 36 | Hose support | 1 | 669144 |
| 37 | Bolt hex. 3/8" NC x 2 3/4" gr.5, PTD | 1 | 0100045 |
| 38 | Bolt hex. 5/16" NC x 1 1/4" gr.5, PTD | 1 | 0100020 |

PARTS

HYDRAULIC SYSTEM H64A

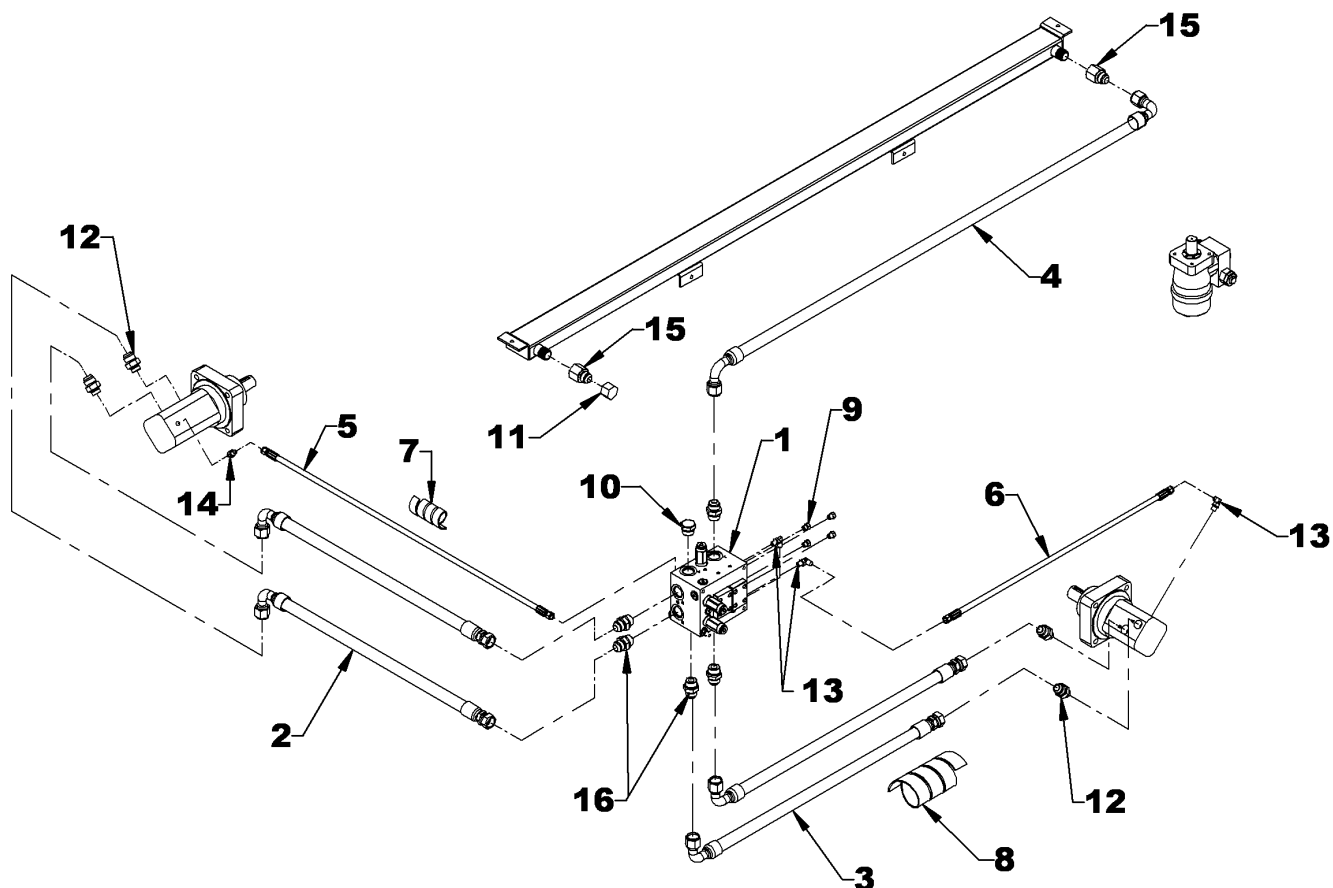
| REF. | DESCRIPTION | QTY | PART # |
|------|--|-----|---------|
| 1 | Hydraulic block 2 covers included | 1 | 3920030 |
| 2 | Hose 3/4" x 25" lg | 2 | 3700173 |
| 3 | Hose 3/4" x 33" lg | 2 | 3700159 |
| 4 | Hose 3/4" x 59" lg | 1 | 3700160 |
| 5 | Hose 1/4" x 30 1/4" lg | 2 | 3700164 |
| 6 | Elbow 45° 1 1/16" ORB M X 1 1/16" JIC M | 2 | 2600184 |
| 7 | Plastic guard for hoses 10" | 1 | 669154 |
| 8 | Hydraulic plug 7/16 ORB | 4 | 2600048 |
| 9 | Hydraulic plug 1 1/16-20 ORB | 1 | 2600049 |
| 10 | Female Hydraulic plug 1 1/16"-12 JIC 37° | 1 | 2600183 |
| 11 | Fitting 7/8" ORB M x 1 1/16" JIC M | 4 | 2600058 |
| 12 | Elbow 90° 7/16 ORB M x 7/16 JIC M | 3 | 2600065 |
| 13 | Adapter 7/16" JIC M X 7/16" ORB M | 1 | 2600123 |
| 14 | Adapter 3/4" NPT F x 1 1/16" JIC M | 2 | 2600203 |
| 15 | Union 1 1/16" JIC M x 1 1/16 ORB M | 3 | 660571 |



PARTS

HYDRAULIC SYSTEM H76A-H84A

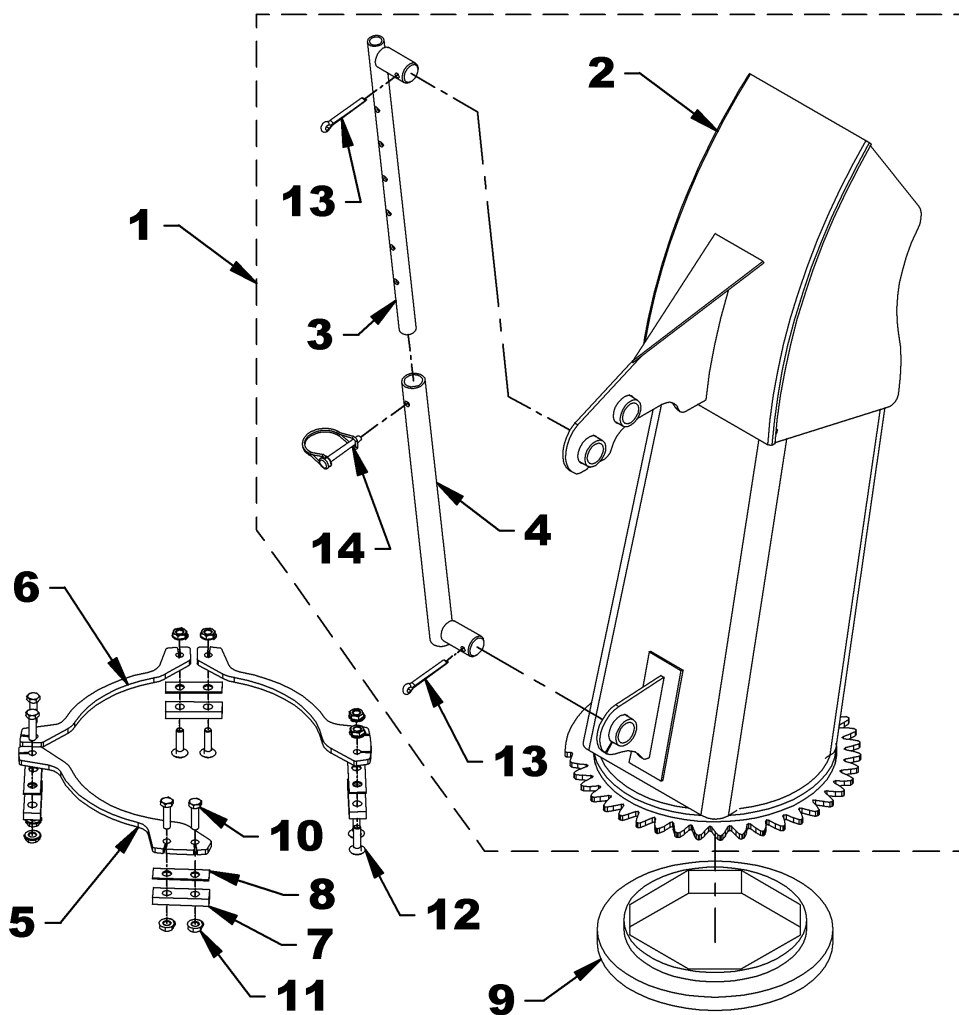
| REF. | DESCRIPTION | QTY | PART # |
|------|--|-----|---------|
| 1 | Hydraulic block 2 covers included | 1 | 3920030 |
| 2 | Hose 3/4" x 30 1/2" lg for H76A | 2 | 3700158 |
| | Hose 3/4" x 34 1/2" lg for H84A | 2 | 3700174 |
| 3 | Hose 3/4" x 33" lg | 2 | 3700159 |
| 4 | Hose 3/4" x 59" lg | 1 | 3700160 |
| 5 | Hose 1/4" x 38 1/2" lg for H76A | 1 | 3700163 |
| | Hose 1/4" x 42 1/2" lg for H84A | 1 | 3700175 |
| 6 | Hose 1/4" x 30 1/4" lg | 1 | 3700164 |
| 7 | Plastic guard for hoses 4" | 1 | 669152 |
| 8 | Plastic guard for hoses 10" | 1 | 669154 |
| 9 | Hydraulic plug 7/16 ORB | 4 | 2600048 |
| 10 | Hydraulic plug 1 1/16-20 ORB | 1 | 2600049 |
| 11 | Female Hydraulic plug 1 1/16"-12 JIC 37° | 1 | 2600183 |
| 12 | Fitting 7/8" ORB M x 1 1/16" JIC M | 4 | 2600058 |
| 13 | Elbow 90° 7/16 ORB M x 7/16 JIC M | 3 | 2600065 |
| 14 | Adapter 7/16" JIC M X 7/16" ORB M | 1 | 2600123 |
| 15 | Adapter 3/4" NPT F x 1 1/16" JIC M | 2 | 2600203 |
| 16 | Union 1 1/16" JIC M x 1 1/16 ORB M | 5 | 660571 |



PARTS

CHUTE – FOR H64A

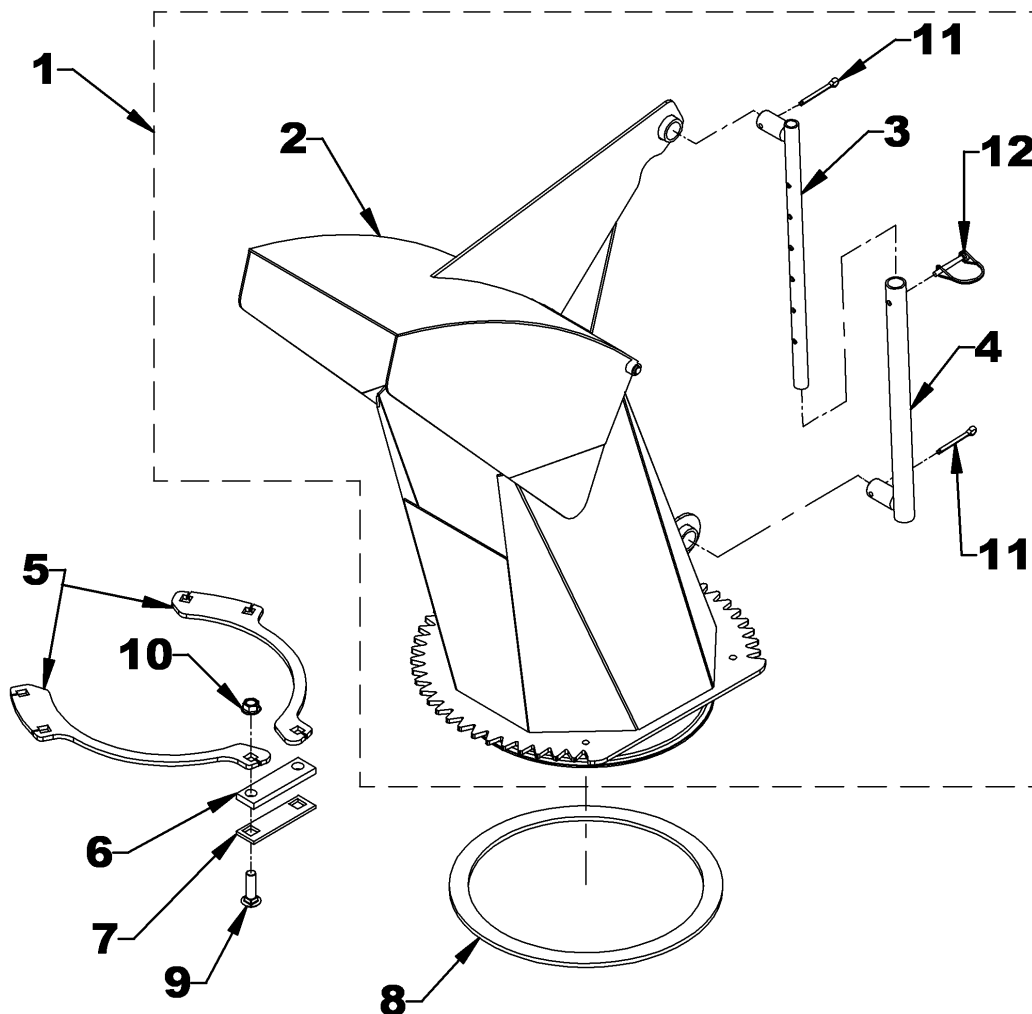
| REF. | DESCRIPTION | QTY | PART # |
|------|--|-----|---------|
| 1 | Chute ass'y with decals | 1 | 669293 |
| 2 | Chute | 1 | 669294 |
| 3 | Adjustment rod | 1 | 654074 |
| 4 | Adjustment tube | 1 | 654076 |
| 5 | Retaining plate | 2 | 665399 |
| 6 | Retaining plate | 1 | 666574 |
| 7 | Spacer 3/8" thick x 3/4" larg. x 2 1/2" lg | 4 | 665957 |
| 8 | Spacer 16GA thick x 3/4" larg. x 2.5 lg | 4 | 666191 |
| 9 | Rotation bushing | 1 | 659151 |
| 10 | Bolt hex. 5/16"NC x 1 1/4" gr.5, PTD | 4 | 0100020 |
| 11 | Serrated flange nut 5/16" NC, PTD | 8 | 0900036 |
| 12 | Carriage bolt 5/16"NC x 1 1/4" gr.5, PTD | 4 | 0300004 |
| 13 | Cotter pin 1/4" x 2" lg PTD | 2 | 1500022 |
| 14 | Round wire lock pin 1/4", PTD | 1 | 1900006 |



PARTS

CHUTE – FOR H76A & H84A

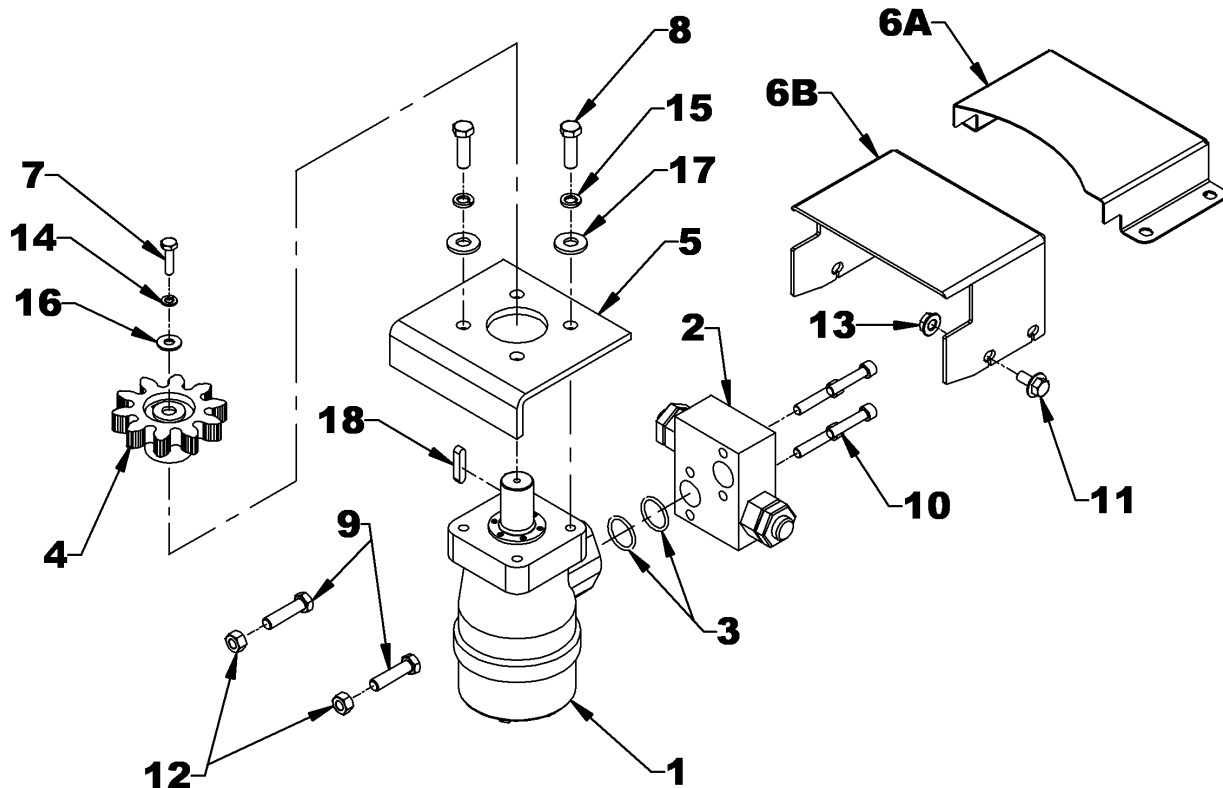
| REF. | DESCRIPTION | QTY | PART # |
|------|--|-----|---------|
| 1 | Chute ass'y with decals | 1 | 669300 |
| 2 | Chute | 1 | 669176 |
| 3 | Adjustment rod | 1 | 654074 |
| 4 | Adjustment tube | 1 | 654076 |
| 5 | Retaining plate | 2 | 665935 |
| 6 | Spacer 3/8" thick x 1.25" larg. x 4 1/2" lg | 3 | 669178 |
| 7 | Spacer 3/16" thick x 1.25" larg. x 4 1/2" lg | 3 | 669179 |
| 8 | Rotation bushing | 1 | 662834 |
| 9 | Carriage bolt 1/2"NC x 1 3/4" gr.5, PTD | 6 | 0300025 |
| 10 | Serrated flange nut 1/2" NC, PTD | 6 | 0900046 |
| 11 | Cotter pin 1/4" x 2" lg PTD | 1 | 1500022 |
| 12 | Round wire lock pin 1/4", PTD | | 1900006 |



PARTS

HYDRAULIC ROTATION

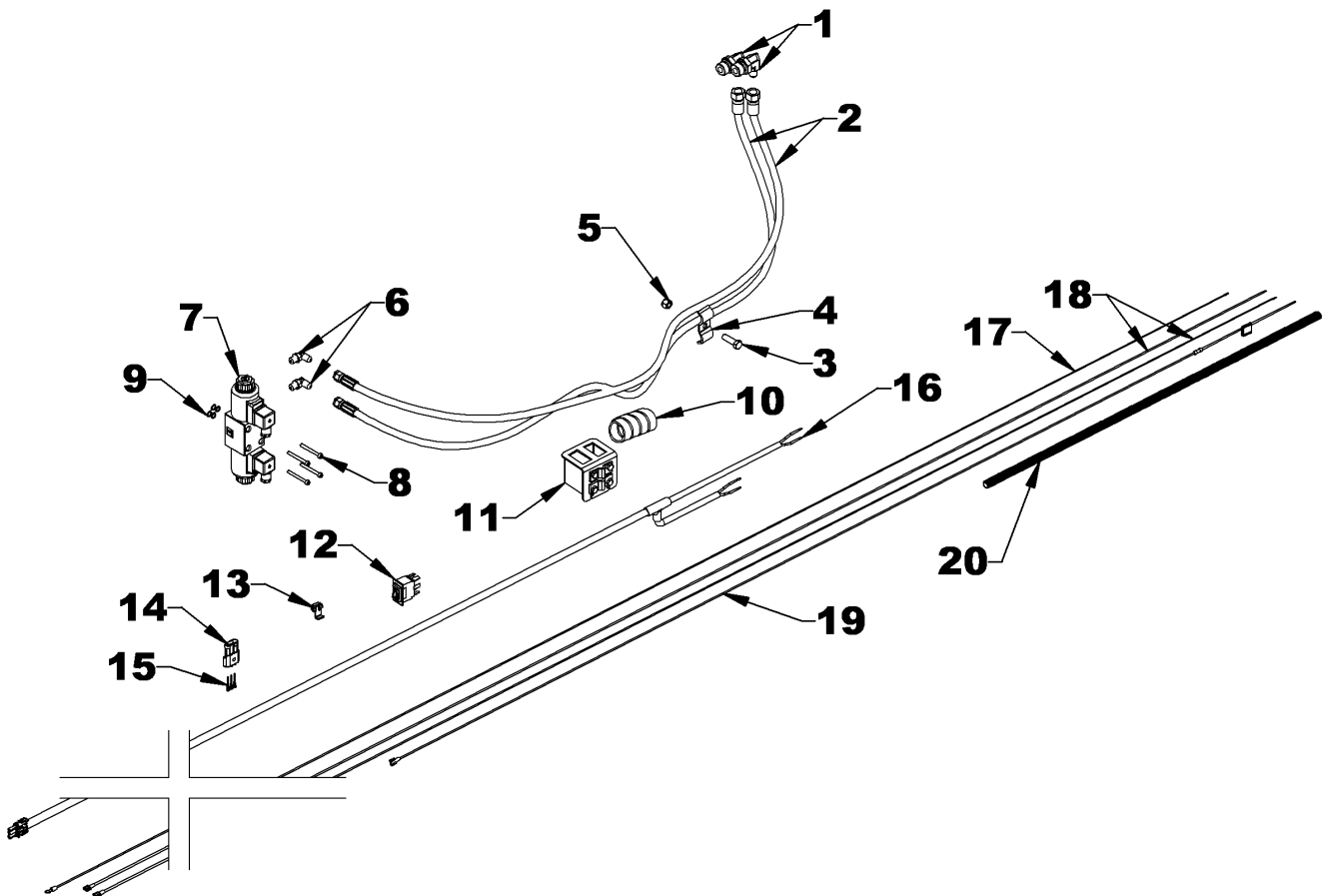
| REF. | DESCRIPTION | QTY | PART # |
|------|---|-----|---------|
| 1 | Hydraulic motor 160cc with preset valve @ 1600PSI | 1 | 3910023 |
| | Seal kit for 3910023 | 1 | 3910028 |
| 2 | Relief valve adjust @1600 PSI | 1 | 3920031 |
| 3 | O-ring 0.103" x 15/16" x 1 1/8" OD | 2 | 3900463 |
| 4 | Motor gear | 1 | 665930 |
| 5 | Anchoring plate | 1 | 667338 |
| 6A | Gear shield for H64A | 1 | 669295 |
| 6B | Gear shield for H76A & H84A | 1 | 667929 |
| 7 | Bolt hex. 1/4" NC x 1" gr.5, PTD | 1 | 0100004 |
| 8 | Bolt hex. 3/8" NC x 1 1/4" gr.5, PTD pour H64A | 4 | 0100039 |
| | Bolt hex. 3/8" NC x 1 1/2" gr.5, PTD pour H76A & H84A | 4 | 0100040 |
| 9 | Bolt hex. 3/8" NC x 1 1/2" gr.5, PTD | 2 | 0100040 |
| 10 | Allen socket head cap screw 5/16" NC x 1 1/2" gr.5, cylindr. | 4 | 0800011 |
| 11 | Serrated flange bolt 5/16" NC x 3/4" Gr.5 PTD, H64A | 3 | 0200083 |
| | Serrated flange bolt 5/16" NC x 3/4" Gr.5 PTD, H76A & H84A | 4 | 0200083 |
| 12 | Nut hex. 3/8" NC, PTD | 2 | 0900003 |
| 13 | Serrated flange nut 5/16" NC, PTD, H64A | 3 | 0900036 |
| | Serrated flange nut 5/16" NC, PTD, H76A & H84A | 4 | 0900036 |
| 14 | Lockwasher 1/4", PTD | 1 | 1200002 |
| 15 | Lockwasher 3/8", PTD | 4 | 1200004 |
| 16 | Flat washer 1/4" (5/16" hole), PTD | 1 | 1400002 |
| 17 | Flat washer 3/8" (7/16" hole), PTD | 4 | 1400004 |
| 18 | Key 1/4" x 1/4" x 1" lg | 1 | 655379 |



PARTS

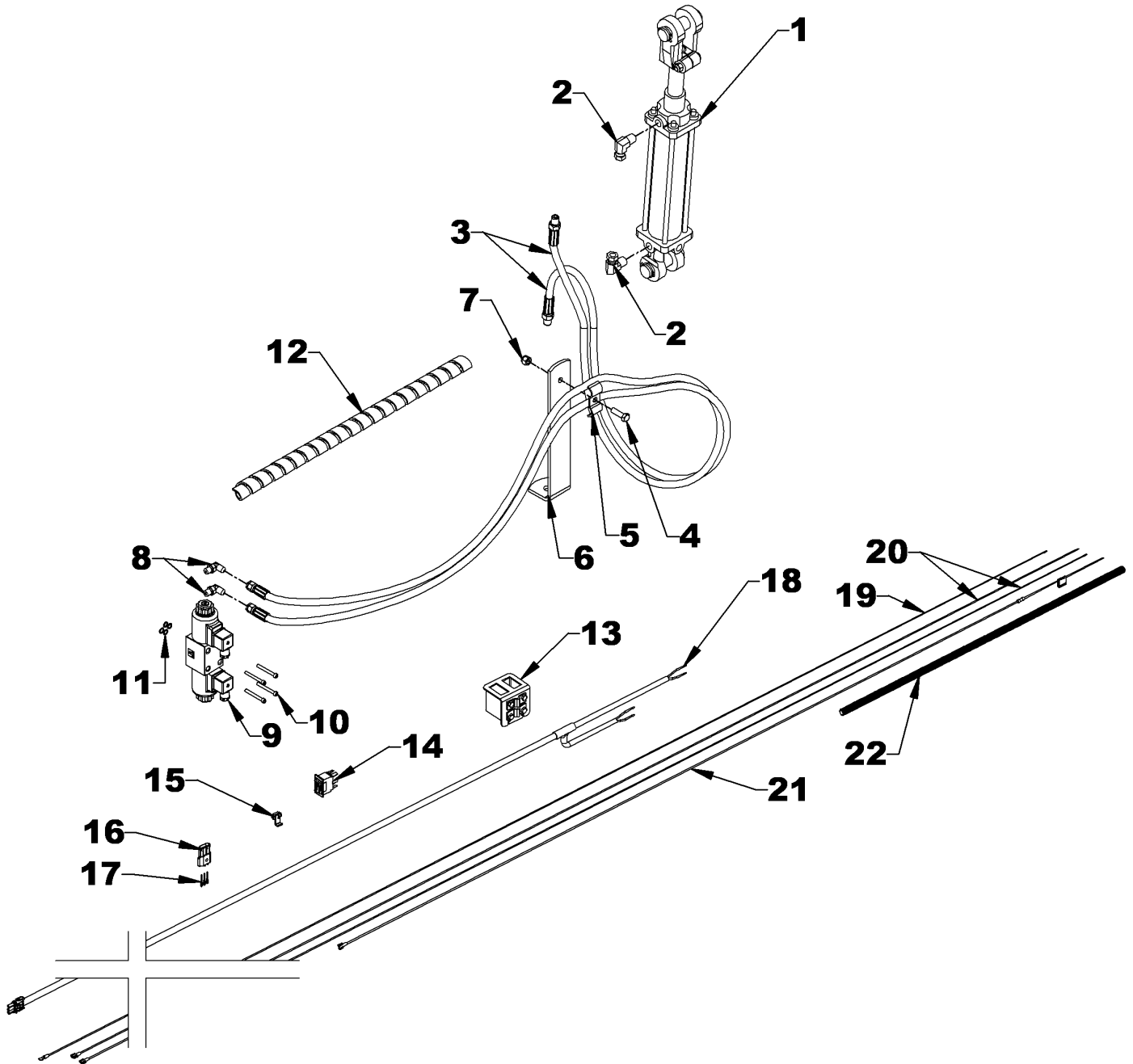
HYDRAULIC VALVE FOR CHUTE ROTATION – 8183A

| REF. | DESCRIPTION | QTY | PART # |
|------|---|-----|---------|
| 1 | Elbow 90° 7/8" ORBM x 9/16 X 18 JICM | 2 | 2600106 |
| 2 | Hose 59" lg – 9/16" JIC SWF x 7/16" JIC SWF | 2 | 3700165 |
| 3 | Bolt hex. ø3/8"NC x 1 1/4" Gr.5 PTD | 1 | 0100039 |
| 4 | Hose clamp 1/4" | 1 | 666583 |
| 5 | Nylon insert locknut ø3/8"NC PTD | 1 | 1000006 |
| 6 | Elbow 90° 7/16 ORB M X 7/16 JIC M | 2 | 2600065 |
| 7 | Electric valve | 1 | 3900027 |
| 8 | Allen socket head cap screw 10-24 NC x 1 3/4" gr.5, black, cylindr. | 4 | 0800018 |
| 9 | O-ring 0.07" x 3/8" x 1/2" ext. | 4 | 3900462 |
| 10 | Hose plastic guard 4" lg. | 1 | 669152 |
| 11 | Switch box | 1 | 669281 |
| 12 | Switch with rotation decal | 1 | 669255 |
| 13 | Connector tap | 1 | 656665 |
| 14 | Female connector three cavity | 1 | 4000066 |
| 15 | Male terminal | 3 | 663282 |
| 16 | Electric harness 160" | 1 | 4000078 |
| 17 | Negative wire (black) 200" | 1 | 669314 |
| 18 | Positive wire (white) 200" | 2 | 669313 |
| 19 | Wire with fuse | 1 | 666065 |
| 20 | Loom 360" | 1 | 669315 |



PARTS

HYDRAULIC VALVE FOR HYDRAULIC DEFLECTOR – 8184A



PARTS

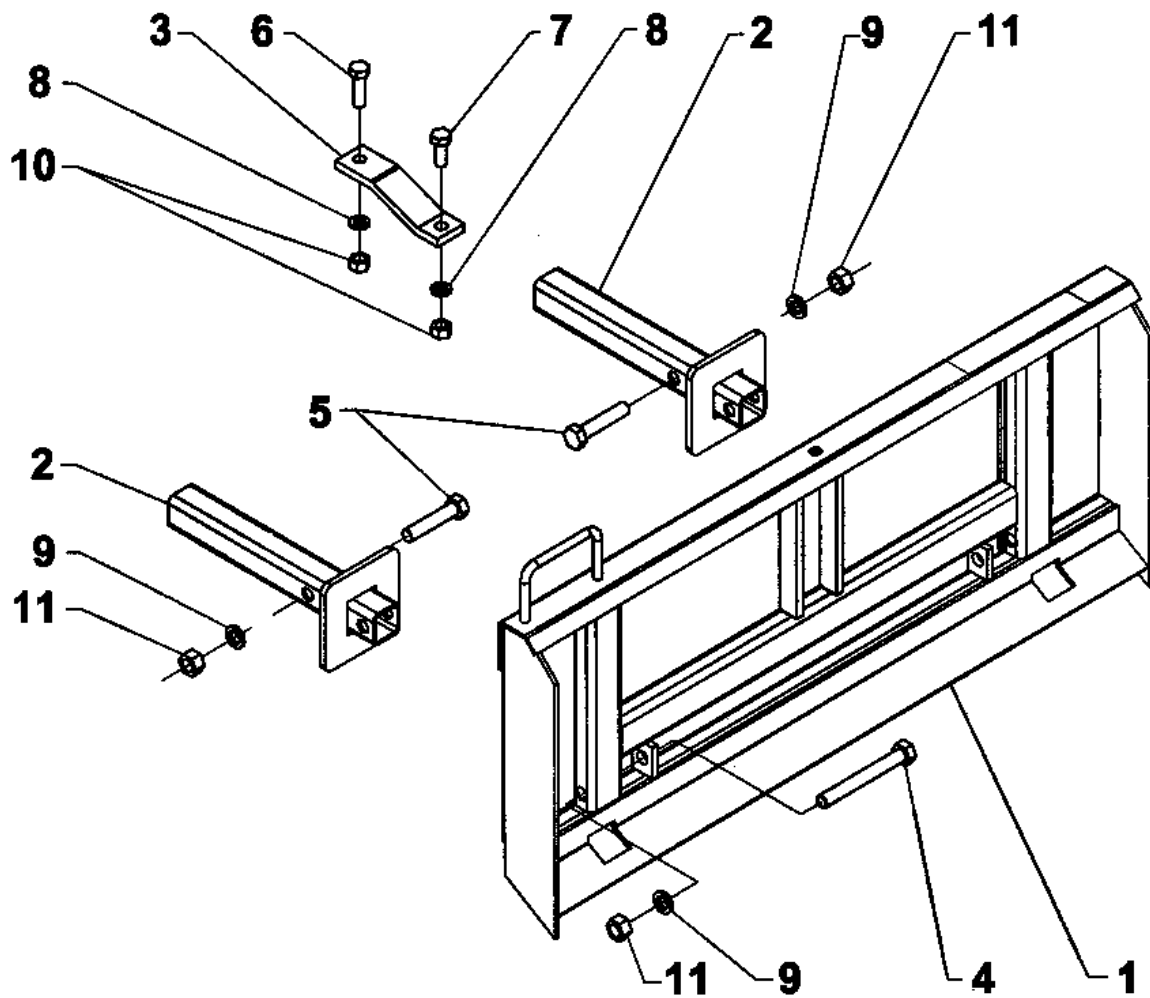
HYDRAULIC VALVE FOR HYDRAULIC DEFLECTOR – 8184A

| REF. | DESCRIPTION | QTY | PART # |
|--|---|-----|---------|
| Cylinder 8249 for H76A & H84A | | | |
| 1 | Cylinder 2" x 8" | 1 | 3900022 |
| | Seal kit - cylinder 3900022 (not illustrated) | | 3900205 |
| Cylinder 8155 for H64A | | | |
| 1 | Cylinder 2" x 6" | 1 | 3900002 |
| | Seal kit - cylinder 3900002 (not illustrated) | | 2600047 |
| 2 | Elbow 90° 3/8" NPT M x 1/4" NPT SWF | 2 | 654438 |
| 3 | Hose 75" lg - 1/4"NPT SM x 7/16" JIC SWF | 2 | 3700077 |
| 4 | Bolt hex. ø3/8"NC x 1 1/4" Gr.5 PTD | 1 | 0100039 |
| 5 | Hose clamp 1/4" | 1 | 666583 |
| 6 | Hose support | 1 | 669275 |
| 7 | Nylon insert locknut ø3/8"NC PTD | 1 | 1000006 |
| 8 | Elbow 90° 7/16 ORB M X 7/16 JIC M | 2 | 2600065 |
| 9 | Electric valve | 1 | 3900027 |
| 10 | Allen socket head cap screw 10-24 NC x 1 3/4" gr.5, black, cylindr. | 4 | 0800018 |
| 11 | O-ring 0.07" x 3/8" x 1/2" ext. | 4 | 3900462 |
| 12 | Hose plastic guard 4" lg. | 1 | 669152 |
| 13 | Switch box | 1 | 669281 |
| 14 | Switch with rotation decal | 1 | 669255 |
| 15 | Connector tap | 1 | 656665 |
| 16 | Female connector three cavity | 1 | 4000066 |
| 17 | Male terminal | 3 | 663282 |
| 18 | Electric harness 160" | 1 | 4000078 |
| 19 | Negative wire (black) 200" | 1 | 669314 |
| 20 | Positive wire (white) 200" | 2 | 669313 |
| 21 | Wire with fuse | 1 | 666065 |
| 22 | Loom 360" | 1 | 669315 |

PARTS

UNIVERSAL HITCH - 8153

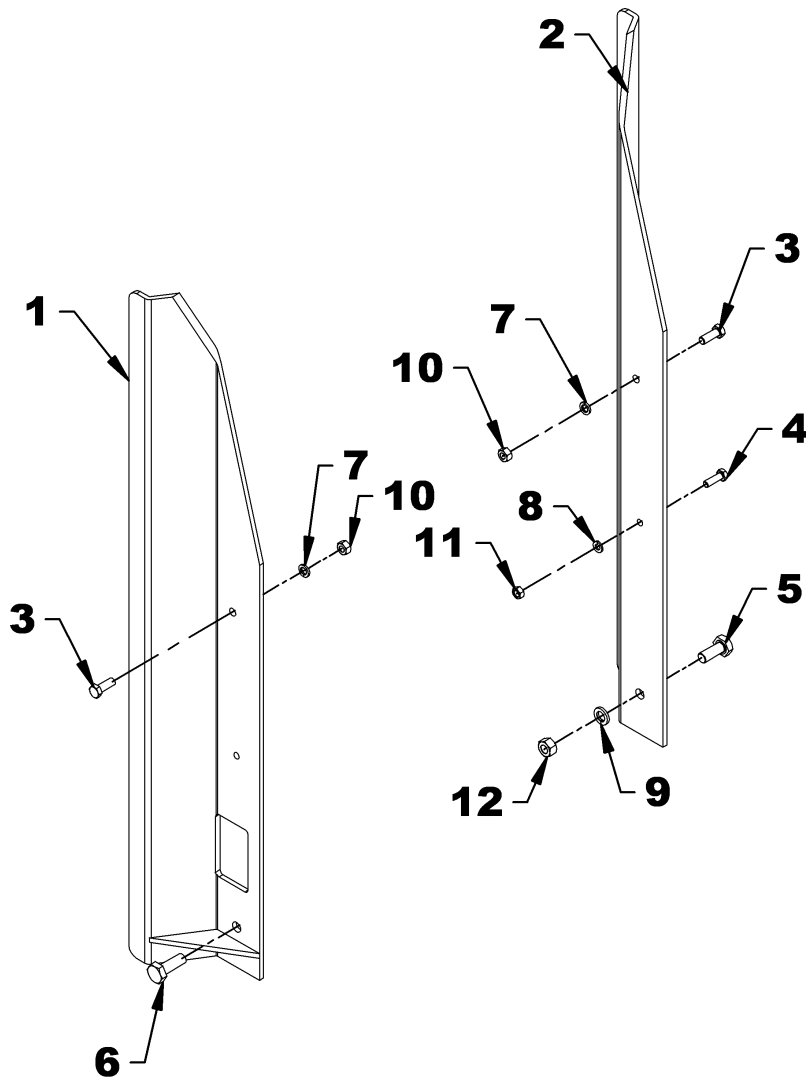
| REF. | DESCRIPTION | QTY | PART # |
|------|--------------------------------------|-----|---------|
| 1 | Hitch | 1 | 665881 |
| 2 | Hitch arm | 2 | 665882 |
| 3 | Upper bracket | 1 | 665883 |
| 4 | Bolt hex. 3/4" NC x 6", PTD gr.5 | 2 | 0100128 |
| 5 | Bolt hex. 3/4" NC x 3 1/2", PTD gr.5 | 2 | 0100122 |
| 6 | Bolt hex. 5/8" NC x 2", PTD gr.5 | 1 | 0100095 |
| 7 | Bolt hex. 5/8" NC x 1 1/2", PTD gr.5 | 1 | 0100093 |
| 8 | Lockwasher 5/8", PTD | 2 | 1200007 |
| 9 | Lockwasher 3/4", PTD | 4 | 1200008 |
| 10 | Nut hex. 5/8" NC, PTD | 2 | 0900007 |
| 11 | Nut hex. 3/4" NC, PTD | 4 | 0900008 |



PARTS

DRIFT CUTTERS – 8152

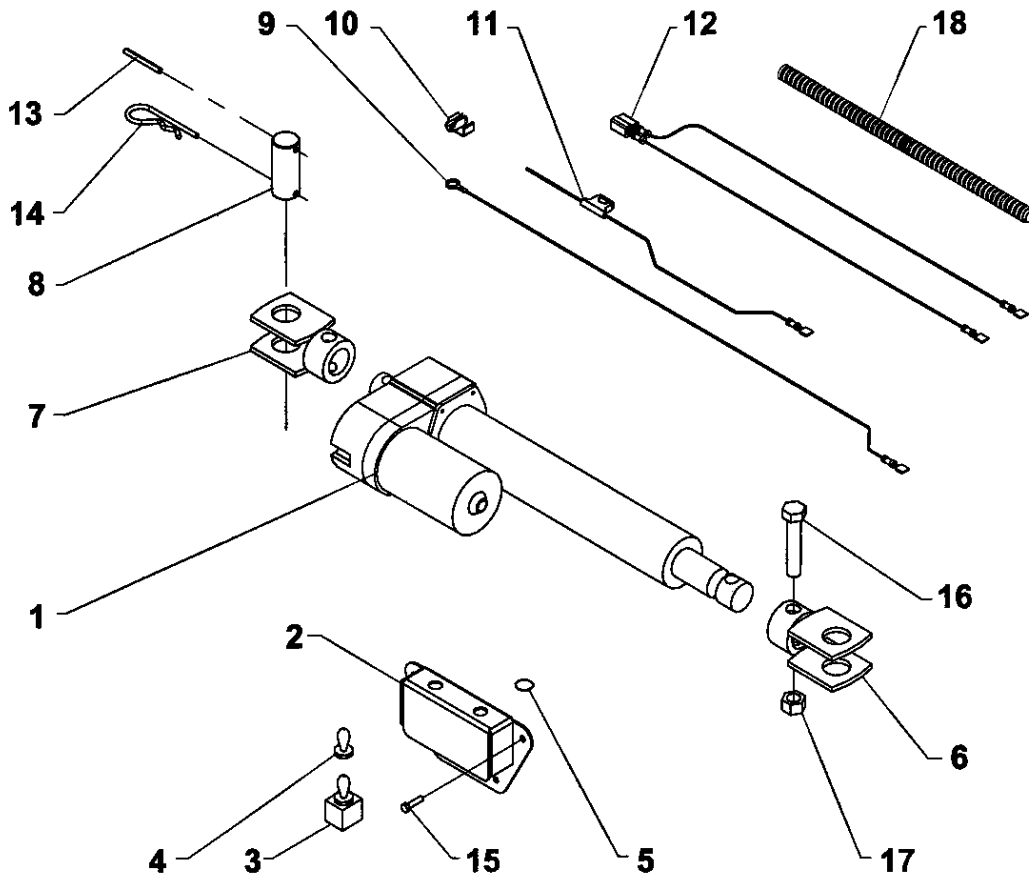
| REF. | DESCRIPTION | QTY | PART # |
|------|-------------------------------------|-----|---------|
| 1 | Left drift cutter | 1 | 665874 |
| 2 | Right drift cutter | 1 | 665879 |
| 3 | Bolt hex. 3/8"NC x 1", PTD, gr.5 | 2 | 0100038 |
| 4 | Bolt hex. 5/16"NC x 1", PTD, gr.5 | 1 | 0100019 |
| 5 | Bolt hex 1/2"NC x 1 1/4", PTD, gr.5 | 1 | 0100069 |
| 6 | Lockwasher 3/8", PTD | 2 | 1200004 |
| 7 | Lockwasher 5/16", PTD | 1 | 1200003 |
| 8 | Lockwasher 1/2", PTD | 1 | 1200006 |
| 9 | Nut hex. 3/8"NC, PTD | 2 | 0900003 |
| 10 | Nut hex. 5/16"NC, PTD | 1 | 0900002 |
| 11 | Nut hex. 1/2"NC, PTD | 1 | 0900006 |



PARTS

ELECTRIC DEFLECTOR - 8154

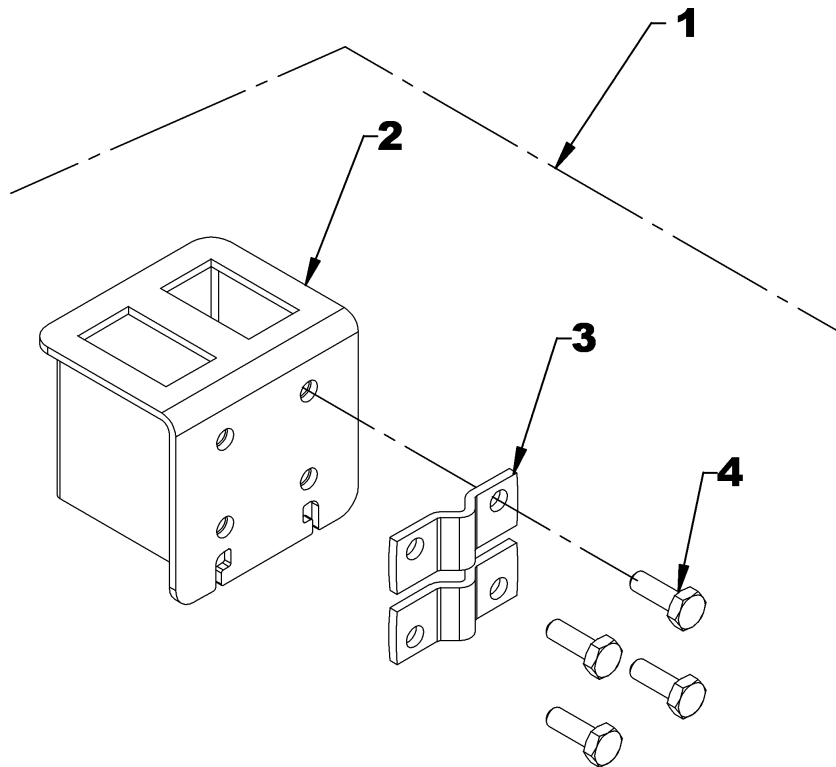
| REF. | DESCRIPTION | QTY | PART # | | | | | | | | |
|------|-------------------------------------|-----|---------|----|----------------------------------|---|---------|----|------|---|--------|
| 1 | Electric actuator | 1 | 665573 | | | | | | | | |
| 2 | Switch box | 1 | 666048 | | | | | | | | |
| 3 | Switch | 1 | 663383 | | | | | | | | |
| 4 | Rubber cap | 1 | 658666 | | | | | | | | |
| 5 | Plastic cap | 1 | 662530 | | | | | | | | |
| 6 | Clevis – rod end | 1 | 666049 | | | | | | | | |
| 7 | Clevis – fixed end | 1 | 666051 | | | | | | | | |
| 8 | Pin 1" | 2 | 666057 | | | | | | | | |
| 9 | Ground wire 72" (black) | 1 | 666054 | | | | | | | | |
| 10 | Tap connector | 1 | 656665 | | | | | | | | |
| 11 | Fuse wire 72" (red) | 1 | 666055 | | | | | | | | |
| 12 | Actuator wire | 1 | 666056 | | | | | | | | |
| 13 | Spring pin 3/16" x 1 3/4", PTD | 2 | 1600009 | | | | | | | | |
| 14 | Hairpin 4mm x 80mm, PTD | 2 | 1800002 | | | | | | | | |
| 15 | Self-drilling screw #10 x 1/2", PTD | 4 | 3200011 | | | | | | | | |
| 16 | Bolt hex. 1/2"NC x 2 1/2", PTD | 2 | 0100076 | 17 | Nylon insert locknut 1/2"NC, PTD | 2 | 1000011 | 18 | Loom | 1 | 666053 |
| 17 | Nylon insert locknut 1/2"NC, PTD | 2 | 1000011 | | | | | | | | |
| 18 | Loom | 1 | 666053 | | | | | | | | |



PARTS

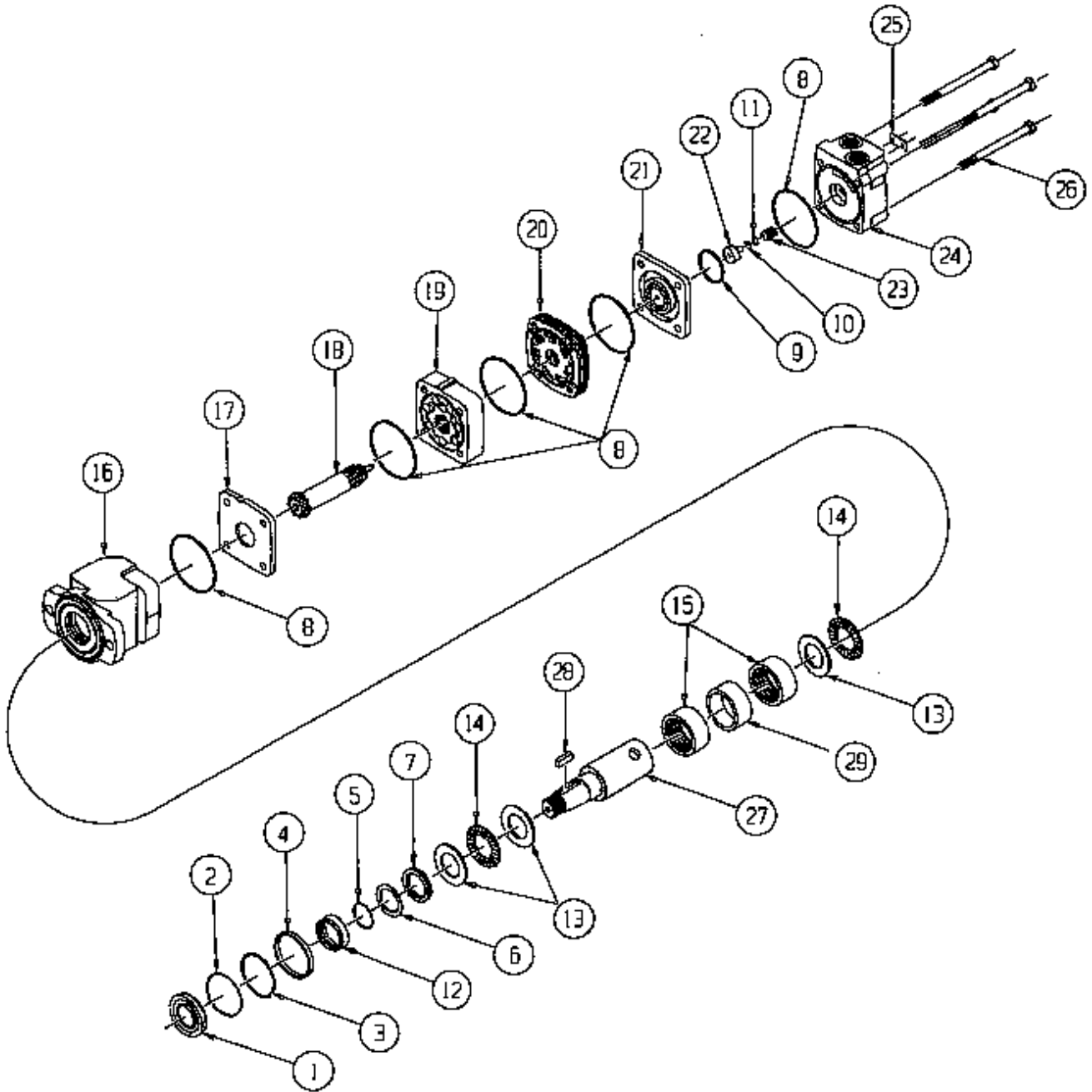
SWITCH BOX KIT- 669285

| REF. | DESCRIPTION | QTY | PART # |
|------|--|-----|---------|
| 1 | Switch box assembly | 1 | 669285 |
| 2 | Switch box | 1 | 669281 |
| 3 | Switch box clamp | 2 | 667558 |
| 4 | Bolt hex. $\varnothing 1/4$ "NC x $3/4$ " gr.5 PTD | 4 | 0100003 |



PARTS

HYDRAULIC MOTORS – 3910021, 3910022, 3910058 & 3910059



PARTS

HYDRAULIC MOTORS – 3910021, 3910022, 3910058 & 3910059

| REF. | DESCRIPTION | QTY | PART # |
|------|--------------------------------------|-----|---------|
| | Seal Kit (Includes #1 to 11) | | 3900042 |
| 1 | Dust seal | 1 | ---- |
| 2 | Retaining ring | 1 | ---- |
| 3 | Backup shim | 1 | ---- |
| 4 | High pressure seal | 1 | ---- |
| 5 | Backup shim | 1 | ---- |
| 6 | Teflon backup seal | 1 | ---- |
| 7 | Shaft seal | 1 | ---- |
| 8 | Body seal | 5 | ---- |
| 9 | Collector seal | 1 | ---- |
| 10 | O-Ring seal | 1 | ---- |
| 11 | Teflon backup seal | 1 | ---- |
| 12 | Seal carrier | 1 | 3900132 |
| 13 | Thrust washer | 3 | 3900044 |
| 14 | Thrust bearing | 2 | 3900045 |
| 15 | Housing bearing | 2 | 3900046 |
| 16 | Housing Kit, (includes #13-14-15-29) | 1 | 3900047 |
| 17 | Wear plate | 1 | 3900133 |
| 18 | Drive link kit for 3910021 | 1 | 3900049 |
| | Drive link kit for 3910022 | 1 | 3900051 |
| | Drive link kit for 3910058 | 1 | 3900048 |
| | Drive link kit for 3910059 | 1 | 3900050 |
| 19 | Rotor for 3910021 | 1 | 3900053 |
| | Rotor for 3910022 | 1 | 3900055 |
| | Rotor for 3910058 | 1 | 3900052 |
| | Rotor for 3910059 | 1 | 3900054 |
| 20 | Collector | 1 | 3900056 |
| 21 | Commutator assembly | 1 | 3900057 |
| 22 | End cover piston | 1 | 3900059 |
| 23 | Piston spring | 1 | 3900060 |
| 24 | End cover (includes #10-11-22-23) | 1 | 3900063 |
| 25 | Serial number plate | 1 | --- |
| 26 | Bolt set kit (4) for 3910021 | 1 | 3900065 |
| | Bolt set kit (4) for 3910022 | 1 | 3900067 |
| | Bolt set kit (4) for 3910058 | 1 | 3900064 |
| | Bolt set kit (4) for 3910059 | 1 | 3900066 |
| 27 | Shaft 1 1/4" | 1 | 3900068 |
| 28 | Key | 1 | 3900069 |
| 29 | Bearing spacer | 1 | 3900071 |

WARRANTY



RADTECH warrants to the original buyer that the equipment is free from defects in material and workmanship. RADTECH's obligation, under this warranty, will be limited to the repair or replacement of any non-wear part or component, which RADTECH finds to be defective within **one year** from the date of original purchase (unless otherwise-specified). The applicable warranty period for commercial or rental use shall be ninety (90) days from the date of purchase

In no event shall RADTECH be liable for consequential, special, direct or indirect damages incurred by the buyer/user.

All components not manufactured by RADTECH (such as motors, actuators, hydraulic components, tires, ...etc.) are covered by the original manufacturer's warranty in conjunction with RADTECH

RADTECH's obligation under this warranty shall be limited to repairing or replacing, free of charge to the original purchaser, any part that, in RADTECH's judgment, shall show evidence of such defect, provided the **distributor** returns the part prepaid within thirty (30) days from date of failure.

This warranty shall not be interpreted to render RADTECH liable for injuries or damages of any kind or nature to person or property. This warranty does not extend to losses because of delays, or to any expenses or losses incurred for labor, substitute machinery, rental or for any other reason.

Except as set forth above, RADTECH shall have no obligation or liability of any kind on account of any of its equipment and shall not be liable for special or consequential damages. RADTECH makes no other warranty, expressed or implied, and specifically, RADTECH disclaims any implied warranty or merchantability or fitness for a particular purpose. **Some states or provinces do not permit limitations or exclusions of implied warranties or incidental or consequential damages, so the limitations or exclusions in this warranty may not apply.**

This warranty is subject to any existing conditions of supply, which may directly affect our ability to obtain materials or manufacture replacement parts. RADTECH reserves the right to make improvements in design or changes in specifications at any time, without incurring any obligation to owners of units previously sold.

No one is authorized to alter, modify or enlarge this warranty nor the exclusions, limitations and reservations.

2835 Chemin de l'Aéroport, Thetford Mines (Québec) G6G 5R7

Tel.: (418) 338-4499 Fax: (418) 388-6090
Internet : www.radinter.com e-mail : radtech@radinter.com

TORQUE SPECIFICATION TABLE

GENERAL SPECIFICATION TABLE

Use the following torques when special torques are not given

NOTE: These values apply to fasteners as received from supplier, dry, or when lubricated with normal engine oil. They do not apply if special graphited or moly sidulphide greases or other extreme pressure lubricants are used. This applies to both UNF and UNC threads.

| BOLT HEAD IDENTIFICATION MARKS AS PER GRADE NOTE: MANUFACTURING MARKS WILL VARY. | | | | | | | | | | | | | |
|---|-------------|-------------|------|---------------|-------|-------------|-------|---------------|--------|-------------|------|---------------|--------|
| | | Torque | | Torque | | Torque | | Torque | | Torque | | Torque | |
| BOLT SIZES | | Pounds-Foot | | Newtons-Meter | | Pounds-Foot | | Newtons-Meter | | Pounds-Foot | | Newtons-Meter | |
| Inches | Millimeters | MIN. | MAX. | MIN. | MAX. | MIN. | MAX. | MIN. | MAX. | MIN. | MAX. | MIN. | MAX. |
| 1/4 | 6.35 | 5 | 6 | 6.8 | 8.13 | 9 | 11.0 | 12.2 | 14.9 | 12 | 15 | 16.3 | 30.3 |
| 5/16 | 7.94 | 10 | 12 | 13.6 | 16.3 | 17 | 20.5 | 23.1 | 27.8 | 24 | 29 | 32.5 | 39.3 |
| 3/8 | 9.53 | 20 | 23 | 27.1 | 31.2 | 35 | 42.0 | 47.5 | 57.0 | 45 | 54 | 61.0 | 73.2 |
| 7/16 | 11.11 | 25 | 30 | 40.7 | 47.4 | 54 | 64.0 | 73.2 | 86.8 | 70 | 84 | 94.9 | 113.9 |
| 1/2 | 12.70 | 45 | 52 | 61.0 | 70.5 | 80 | 96.0 | 108.5 | 130.2 | 110 | 132 | 149.2 | 179.0 |
| 9/16 | 14.29 | 65 | 75 | 88.1 | 101.6 | 110 | 132.0 | 149.2 | 179.0 | 160 | 192 | 217.0 | 260.4 |
| 5/8 | 15.88 | 95 | 105 | 128.7 | 142.3 | 150 | 180 | 203.4 | 244.1 | 220 | 264 | 298.3 | 358.0 |
| 3/4 | 19.05 | 150 | 185 | 203.3 | 250.7 | 270 | 324 | 366.1 | 439.3 | 380 | 456 | 515.3 | 618.3 |
| 7/8 | 22.23 | 160 | 200 | 216.8 | 271.0 | 400 | 480 | 542.4 | 650.9 | 600 | 720 | 813.6 | 976.3 |
| 1 | 25.40 | 250 | 300 | 338.8 | 406.5 | 580 | 696 | 786.5 | 943.8 | 900 | 1080 | 1220.4 | 1464.5 |
| 1 1/8 | 25.58 | - | - | - | - | 800 | 880 | 1084.8 | 1193.3 | 1280 | 1440 | 1735.7 | 1952.6 |
| 1 1/4 | 31.75 | - | - | - | - | 1120 | 1240 | 1518.7 | 1681.4 | 1820 | 2000 | 2467.9 | 2712.0 |
| 1 3/8 | 34.93 | - | - | - | - | 1460 | 1680 | 1979.8 | 2278.1 | 2380 | 2720 | 3227.3 | 3688.3 |
| 1 1/2 | 38.10 | - | - | - | - | 1940 | 2200 | 2630.6 | 2983.2 | 3160 | 3560 | 4285.0 | 4827.4 |

METRIC BOLT TORQUE SPECIFICATIONS

| Size of screw | Grade No. | Pitch (mm) | Coarse thread | | | | Fine Thread | | | |
|---------------|-----------|------------|---------------|------|---------------|-------|-------------|------|---------------|-------|
| | | | Pounds-Foot | | Newtons-Meter | | Pounds-Foot | | Newtons-Meter | |
| | | | MIN. | MAX. | MIN. | MAX. | MIN. | MAX. | MIN. | MAX. |
| M6 | 4T | 1.0 | 3.6 | 5.8 | 4.9 | 7.9 | - | - | - | - |
| | 7T | | 5.8 | 9.4 | 7.9 | 12.7 | - | - | - | - |
| | 8T | | 7.2 | 10 | 9.8 | 13.6 | - | - | - | - |
| M8 | 4T | 1.25 | 7.2 | 14 | 9.8 | 19.0 | 12 | 17 | 16.3 | 23.0 |
| | 7T | | 17 | 22 | 23 | 29.8 | 19 | 27 | 25.7 | 36.6 |
| | 8T | | 20 | 26 | 27.1 | 35.2 | 22 | 31 | 29.8 | 42 |
| M10 | 4T | 1.5 | 20 | 25 | 27.1 | 33.9 | 20 | 29 | 27.1 | 39.3 |
| | 7T | | 34 | 40 | 46.1 | 54.2 | 35 | 47 | 47.4 | 63.7 |
| | 8T | | 38 | 46 | 51.5 | 62.3 | 40 | 52 | 54.2 | 70.5 |
| M12 | 4T | 1.75 | 28 | 34 | 37.9 | 46.1 | 31 | 41 | 42 | 55.6 |
| | 7T | | 51 | 59 | 69.1 | 79.9 | 56 | 68 | 75.9 | 92.1 |
| | 8T | | 57 | 66 | 77.2 | 89.4 | 62 | 75 | 84 | 101.6 |
| M14 | 4T | 2.0 | 49 | 56 | 66.4 | 75.9 | 52 | 64 | 70.5 | 86.7 |
| | 7T | | 81 | 93 | 109.8 | 126 | 90 | 106 | 122 | 143.6 |
| | 8T | | 96 | 109 | 130.1 | 147.7 | 107 | 124 | 145 | 168 |
| M16 | 4T | 2.0 | 67 | 77 | 90.8 | 104.3 | 69 | 83 | 93.5 | 112.5 |
| | 7T | | 116 | 130 | 157.2 | 176.2 | 120 | 138 | 162.6 | 187 |
| | 8T | | 129 | 145 | 174.8 | 196.5 | 140 | 158 | 189.7 | 214.1 |
| M18 | 4T | 2.0 | 88 | 100 | 119.2 | 136 | 100 | 117 | 136 | 158.5 |
| | 7T | | 150 | 168 | 203.3 | 227.6 | 177 | 199 | 239.8 | 269.6 |
| | 8T | | 175 | 194 | 237.1 | 262.9 | 202 | 231 | 273.7 | 313 |
| M20 | 4T | 2.5 | 108 | 130 | 146.3 | 176.2 | 132 | 150 | 178.9 | 203.3 |
| | 7T | | 186 | 205 | 252 | 277.8 | 206 | 242 | 279.1 | 327.9 |
| | 8T | | 213 | 249 | 288.6 | 337.4 | 246 | 289 | 333.3 | 391.6 |

TORQUE SPECIFICATION TABLE

TORQUE SPECIFICATION TABLE FOR HYDRAULIC FITTINGS

Use the following torques when a specific torque is not given. Note: These values apply to fittings when dry. These values do not apply if lubricants are used..

| SIZE OF FITTINGS | TORQUE | |
|------------------------------|----------------|----------------|
| | foot-pounds | Newton-meters |
| SIZE (JIC) - INCHES | | |
| 03 - 3/8" - 24 | 8-9 | 12-13 |
| 04 - 7/16" - 20 | 13-15 | 18-20 |
| 05 - 1/2" - 20 | 14-15 | 19-21 |
| 06 - 9/16" - 18 | 23-24 | 32-33 |
| 08 - 3/4" - 16 | 40-43 | 55-57 |
| 10 - 7/8" - 14 | 43-48 | 59-64 |
| 12 - 1 1/16" - 12 | 68-75 | 93-101 |
| 14 - 1 3/16" - 12 | 83-90 | 113-122 |
| 16 - 1 5/16" - 12 | 112-123 | 152-166 |
| 20 - 1 5/8" - 12 | 146-161 | 198-218 |
| 24 - 1 7/8" - 12 | 154-170 | 209-230 |
| 32 - 2 1/2" - 12 | 218-240 | 296-325 |

| SIZE (ORB) - INCHES | foot-pounds | Newton-meters |
|--------------------------|----------------|----------------|
| 03 - 3/8" - 24 | 8-10 | 11-13 |
| 04 - 7/16" - 20 | 14-16 | 20-22 |
| 05 - 1/2" - 20 | 18-20 | 24-27 |
| 06 - 9/16" - 18 | 24-26 | 33-35 |
| 08 - 3/4" - 16 | 50-60 | 68-78 |
| 10 - 7/8" - 14 | 72-80 | 98-110 |
| 12 - 1 1/16" - 12 | 125-135 | 170-183 |
| 14 - 1 3/16" - 12 | 160-180 | 215-245 |
| 16 - 1 5/16" - 12 | 200-220 | 270-300 |
| 20 - 1 5/8" - 12 | 210-280 | 285-380 |
| 24 - 1 7/8" - 12 | 270-360 | 370-490 |

TORQUE SPECIFICATION TABLE

| SIZE (NPT) - INCHES | Torque FFT |
|-------------------------|------------------|
| 1/8" - 27 | 2.0 - 3.0 |
| 1/4" - 18 | 2.0 - 3.0 |
| 3/8" - 18 | 2.0 - 3.0 |
| 1/2" - 14 | 2.0 - 3.0 |
| 3/4" - 16 | 2.0 - 3.0 |
| 1" - 11 1/2" | 1.5 - 2.5 |
| 1 1/4" - 11 1/2" | 1.5 - 2.5 |
| 1 1/2" - 11 1/2" | 1.5 - 2.5 |

ASSEMBLY

The method used to assemble fittings with NPT threads is in two stages. First tighten firmly by hand then tighten one again according to the number of turns listed on the above table. The following method is recommended to minimize the risks of leaks and/or damages to the parts.

1. Inspect threads and tapping to make sure they are clean.
2. Apply a sealant/lubricant product to the NPT threads (Teflon covered threads are preferable to other lubricating products). If PTFE tape (Teflon) is used, make 1,5 or 2 turns clockwise.

Attention: More than 2 turns can cause distortion or cracks in the orifice.

3. Tighten the fitting by hand.

4. Screw the fitting the number of turns listed on the above table making sure that in the case of a shape fitting the end is aligned to the desired position. **Never unscrew a fitting to obtain the proper alignment.**
5. If the leak persists after having followed the preceding instructions, check that the threads are not damaged and the number of seated threads.

If the threads are very damaged, replace the fitting. If the tapping is damaged, retap if possible or replace the part.

Usually, the number of threads seated is between 3, 5 and 6. If the range is different it would indicate that the fitting was tightened too much or not enough or that the tightening was not within thread tolerances. If the fitting is not tight enough, tighten but never more than one turn. If it's too tight, control the threading and tapping and replace the section that has threads that are not within tolerances.

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